



International Invention Innovation Competition in Canada
iCAN-TORONTO, CANADA

THE 3RD EDITION
2018
CATALOGUE
WELCOME MESSAGES • EVENT INFO • LIST OF EXHIBITS

The 3rd International Invention Innovation Competition in Canada, iCAN 2018

THE 3RD ANNUAL iCAN 2018 2018 INTERNATIONAL INVENTION INNOVATION COMPETITION IN CANADA

EXHIBITION · SEMINAR · AWARD CEREMONY

Because We Can



International Invention Innovation Competition in Canada
iCAN-TORONTO, CANADA

North York Memorial Community Hall - Toronto, Canada



PRELIMINARIES REGISTRATION PERIOD

JANUARY 15 - JULY 15



EXHIBITION · SEMINAR · AWARDS

SEPTEMBER 1



INFORMATION & REGISTRATION

www.tisias.org | ican@tisias.org



A non-profit forum supporting innovative business





WELCOME

INTERNATIONAL INVENTION INNOVATION COMPETITION IN CANADA, iCAN 2018

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FOREWORD – THE ORGANIZER, TISIAS



Dear Participants, Delegations and Supporters of iCAN,

On behalf of Toronto International Society of Innovation & Advanced Skills (TISIAS) and the entire iCAN 2018 Organizing Committee and Team, I would like to begin by expressing my heartfelt gratitude to all participants for your attentive involvement and passionate work of creativity introduced and expressed throughout the event. This year marks its 3rd annual edition and we are surprisingly excited to host inventors, students, entrepreneurs, and researchers from more than 40 countries.

TISIAS strives to bring positive changes for the lives of many innovators and further propel our innovation culture. Providing them with the best platform to showcase their creative ideas, offering inventor-friendly services and promoting international invention exhibition participation opportunities for our members have been the key to our global activities throughout the years. Every year, TISIAS goes to more than 10 international invention exhibitions held across Europe and Asia where we see many inventors and students participate and achieve their academic and business goals with their scientific research and innovative products. We realized then that organizing a familiar international event in Toronto would be the most effective way to create new opportunities for everyone which led us to our initial launch of iCAN in 2016.

iCAN provides unique networking opportunities as the event gathers a diverse group of participants coming from countries in Americas, Asia and Europe. It allows the event to become a more effective occasion for sharing ideas, making new partnerships and disseminating innovations in local industries and markets.

Furthermore, iCAN is a stepping stone towards achieving our ultimate goal of bringing a cultural change through innovation. We hope to raise more awareness for the Canadian inventors and students about the significance of world intellectual property and how they can make a difference in academics, businesses and careers through international invention exhibitions and relevant events held worldwide.

Congratulations to all iCAN 2018 Finalists for setting a new standard of excellence in innovation and creativity. I wish all of you the best and thank you for becoming a part of this journey together.

Gratefully Yours,

Moonsuk CHANG

Chairman & Chief Exhibition Officer

Toronto International Society of Innovation & Advanced Skills (TISIAS)



24 July 2018
2018-4015

I would like to begin by appreciating the considerable efforts of the Toronto International Society of Innovation & Advanced Skills (TISIAS) for the organization of International Invention Innovation Competition in Canada (iCAN) within 3 consecutive years which has effectively promoted the culture of invention and innovation in Canada and worldwide.

iCAN 2018 coincides with IFIA's 50th anniversary and I wish to use this opportunity to offer my sincere congratulations to inventors all around the world, the event organizers, IFIA members and partners who have contributed to the attainment of IFIA's mission of disseminating the culture of invention and innovation.

Invention and Innovation are the fundamental pillars of every nation through which economic independence, social welfare, and technological development can be gained. IFIA is proud to have contributed to the economic, social and technological prosperity by supporting the inventors, raising their status, enhancing awareness about the importance of invention and innovation in all aspects of our daily lives and supporting the organization of international invention exhibitions.

IFIA proudly recognizes iCAN as its official event and offers unconditioned support for its organization. IFIA members and the inventors all around the world are highly encouraged to take part in iCAN 2018 and enjoy the unique opportunities provided for them.

Sincerely Yours,

AlirezaRastegar



IFIA President



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World Invention Intellectual Property Associations (WIIPA)

1F, No.20, Lane 81, Sec.6, Chung Hsiao E. Rd., Nan Kang District, Taiwan, R.O.C.

TEL: +886-2-7730-5848 | FAX: +886-2-2654-8464 | E-mail: wiipa@wiipa.org.tw

On behalf of World Invention Intellectual Property Associations (WIIPA), I would like to advance my appreciation to Toronto International Society of Innovation and Advanced Skills (TISIAS) for the great deal of effort they have devoted to organizing a big event: International Invention Innovation Competition in Canada (iCAN) which continues to thrive in the culture of innovation for 3 consecutive years. TISIAS is truly giving one of the biggest impacts for world-around innovators through organizing this event and providing everyone with the opportunity to attend the said event in Toronto, Canada.

Their dedication to bring inventors and entrepreneurs together while facilitating innovation in marketing, licensing and manufacturing of products is truly remarkable. At the same time, TISIAS is always taking the role of promoting and introducing North American innovations and youth science projects at representative international invention exhibitions held across Asia and Europe.

WIIPA supports this event as well as WIIPA's honorable member TISIAS, and urges all of the inventors, invention associations, entrepreneurs, industry representatives and academic/scientific researchers to take advantage of this great platform set up by iCAN organizing committee & team. This is an exceptional opportunity for you to expand your global network and raise a new milestone in your inventing career and academic achievements.

We are honored to represent this year's iCAN and I take this opportunity to wish all participants a successful experience that such event will bring about.

Warmest Regards,

Hsieh, Hsin-Ming

President

World Invention Intellectual Property Associations (WIIPA)





innovation initiative

A non-profit forum supporting innovative business

WELCOME BY BOB HUYBRECHTS



Speaking from Ontario's north wild country, I am enjoying the early sunshine by the lakefront of the family cottage. I think of all the inventors and contenders and how you all travel worldwide distances to come together in Toronto to participate in iCAN, the annual invention competition.

I admire your passion and the courage you display while pursuing new ideas relentlessly! 'Necessity' may well be the mother of invention, but I surmised a long time ago that its father must be 'Tenacity'...

As an inventor myself and also the founder of the world's first inventors' co-operative, Innovation Initiative Co-op, I have lived in the 'invention theatre' since 1988. That is why I am a staunch supporter of the iCAN initiative and the encouragement it bestows on you personally as an active participant.

Congratulations to all and I can't wait to see you all on September 1st!

Bob Huybrechts

President

Innovation Initiative Co-operative Inc. "The Inventors Circle"

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Intellectual Property Strategy Management

HOW CREATIVE



Congratulations to iCAN for hosting the 3rd annual International Invention Innovation Competition in the great city of Toronto. I'd like to acknowledge Moonsuk Chang and his team for once again, producing this exceptional event which makes it possible for inventors and business owners to participate in sharing their ideas. Thank you for providing the space for all of us to congregate and commiserate, turning ideas into reality.

We have the capacity to innovate, but only a few of us take on the challenge associated with such a feat. As inventors and creators, your ideas shape our reality. You are the visionaries who will further alter our world. You are the creators who unveil the future, so continue your efforts to invent and create. Continue to take risks and fight through disappointments and struggles. Let any perceived failures propel you forward toward the next solution. In that essence, iCAN seeks to propel you, and seeks to continuously inspire you toward achieving your goals.

On behalf of iCAN, I'd like to leave you with a final thought in the words of Helen Frankenthaler, "There are no rules. That is how art is born, how breakthroughs happen. Go against the rules or ignore the rules. That is what invention is about."

Congratulations to each and every participant in attendance. You had the courage to attempt greatness. "Inventors, welcome to iCAN 2018."

Sincerely,

Howard A. Lim

President of HOW Creative

howcreative.com



ROMANIAN INVENTORS FORUM



Dear Inventors,

It is the moment for a celebration of creativity on Canadian soil. iCAN is an opportunity to show your ideas to the world, to exchange information and create new partnerships and collaborations. Romanian Inventors Forum supports the activities organized by TISIAS, from the beginning.

We wish you all success and prosperity!

Assoc. Prof. PhD. Eng. Andrei Victor SANDU

President of Romanian Inventors Forum



www.afir.org.ro
www.euroinvent.org
euroinvent@yahoo.com

CROATIAN INVENTORS NETWORK



Dear iCAN Organizer and Participants,

We are truly happy to join iCAN for the first time and look forward to establishing a new tradition of Croatian inventors' participation at the International Invention Innovation Competition in Canada. It has to be the best way to express our happiness about TISIAS many years participation at INOVA, Croatian inventors Shows. The key aim of our participation is to find marketers for Croatian inventions and new products in Canada, but also to improve Croatian Inventors Network business and friendship relations with TISIAS and all other WIIPA members. Our world recognized WIIPA family is the best way to promote our inventions worldwide. Thus, we dedicate our efforts to continuously strengthen WIIPA and for its enhanced global activities.

All the best Croatian wishes for the great iCAN Show 2018.

Neven Marković, Director

*International Affairs and Exhibition Department
Croatian Inventors Network*

CONGOLESE ASSOCIATION OF INVENTORS AND INNOVATORS (@Cii)



In the name of the Congolese Association of Inventors and Innovators, I would like to thank the iCAN 2018 team for organizing this great competition and also for encouraging participations from all over the world. As we all know it, invention and innovation are the fundamentals of any country that would like to get into development. In that regards, my thanks is addressed to the organizer of iCAN 2018 for their courage to undertake a big responsibility for promoting their mission to develop the world's invention and innovation culture and for inventors in many countries around the world who took part in this event.

The Association encourages all participants to continuously invent and be creative. We congratulate all Finalists of iCAN this year for your great success and achievement. We are very glad that we have chosen to take part in this competition and look forward to continuously build partnerships, stay open-minded to work with others for sharing experiences and different domains of invention and innovation to build a better world altogether.

Our sincere thanks to the Ican2018 team for their precious work, dynamism, serious and professionalism they have shown during this period of collaboration and hope to join next Ican2018 competition.



Association Congolaise des Inventeurs et Innovateurs

NTSILOULOU Rosy-Kadel

The Secretary General

Association Congolaise des Inventeurs et Innovateurs (@Cii)

OFEED – MOROCCO



iCAN has certainly become one of the greatest and the most important international events for inventors in just a few years of existence. It was not by impulse; it is a result of the hardworking team in TISIAS which is now one of the most valuable associations in the field of inventions. They dedicate their time and effort on supporting inventors and promoting inventions for youth, women and brilliant inventors all over the world.

I was just amazed by their fantastic contribution to the promotion of innovation worldwide contacting companies and developing fruitful cooperation and partnerships with many countries from Asia, Europe, Africa and America. TISIAS drives its members to be great and successful over their participation in many international competitions and exhibitions

held all around the world. I was honored to meet and discuss with their Chairman Mr. Moonsuk Chang. He is just so brilliant, so talented and so creative.

Moreover, iCAN is truly one of the best invention contests in the world providing opportunities for international participants to discover and share Canadian local culture promoting not only innovation but also economy, industry, culture, tourism, education, science, etc. I am truly so proud to have TISIAS and iCAN as our official partner for many years of collaboration to support inventors and innovators all over the world and I look forward to enhance our fruitful partnership in the near future.

Majid EL BOUAZZAOUI

Executive Committee Member and Department Manager

International Federation of Inventors' Associations (IFIA).

President, OFEED Morocco / Premier Jury Member of IFIA Events



ASSOCIATION OF THAI INNOVATION & INVENTION PROMOTION (ATIP)



Dear Toronto International Society of Innovation & Advanced Skills (TISIAS) members of administration and all participating inventors, Congratulations in achieving a great success in iCAN 2018 and a toast and cheers to the grand opening of iCAN 2018! Wishing you all the best!

Our sincere wishes to all participants, we are so happy and excited for your success. Be proud of your hard work and achievement. Brick by brick, you have built a desirable invention and innovation competition for a better future. Congratulations on this big step you have taken in becoming a better innovator. May the next event blossom in the years to come, and "Good luck!"

Truly Yours,

Dr. Unchalee SANGUANPONG, Assoc. Prof.

President

Association of Thai Innovation and Invention Promotion (ATIP)



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инновационный клуб
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Исходящий № 981/18

« 31 » July 20¹⁸ г.

Toronto International Society of Innovation & Advanced Skills (TISIAS)
International Invention Innovation Competition in Canada, iCAN 2018

Dear colleagues!

International Innovation Club “Archimedes” and Moscow City Organisation “VOIR” are very pleased to express sincere greetings to **the organizing committee and participants of iCAN 2018 Finals!**

iCAN 2018 gathered the best inventors and innovators not only from Canada but from all over the world. Events like iCAN help to bring and develop international connections between inventors and professionals, giving the opportunity to get help and assistance their development in the field of innovations and technologies.

We are thankful to TISIAS for support, cooperation and the organization of an event of such scale, as well as we wish the best luck to the participants. We hope also to see them at our Moscow International Salon of inventions and innovative technologies “Archimedes” in Moscow, 26-29th March 2019.

The inventive activity has no geographical borders, and together we create the future!



Best regards, with hope for the further fruitful cooperation,
Chairman of International Innovation Club “Archimedes”,
Chairman of Moscow city organization “VOIR”
Dmitry Zezulin

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EUROBUSINESS-HALLER



Dear Sirs,

On behalf of Eurobusiness-Haller, the organizer of the International Invention and Innovation Show, INTARG in Poland, I do hope that this year's edition of iCAN Fair shall well promote the achievements of innovative solutions' creators, contributing to the implementation and commercialization of new ideas.

I do believe that the Fair shall be a great occasion for meetings as well as exchange of scientific and business experiences. It shall also bring a lot of inspiration to both exhibitors and visitors. I am also convinced that this event shall constitute a forum for initiating business cooperation of potential investors and technical innovators.

I express my appreciation for iCAN team for the idea itself and organization of a wonderful event that enables world innovators and scientists to present and promote their scientific solutions.

Yours Sincerely,

Edyta Wolczyk

General Manager

Eurobusiness-Haller & INTARG



INTARG



Eurobusiness – Haller

BIURO WSPÓŁPRACY Z ZAGRANICĄ, TŁUMACZEŃ I REKLAMY

ANGOLAN ASSOCIATION OF INVENTORS AND INNOVATORS (A@ii)



The Angolan Association of Inventors and Innovators (A@ii) comes through this message to express our warm greetings to all enthusiasts of creativity, invention and innovation who are participating in iCAN 2018. We congratulate all winners and wish you a successful participation in Toronto, Canada.

Observing the dynamics of the changes taking place in the world, it is judicious to sustain that the invention and innovation represent the first nature of a nation's wealth. It is in this sense that A@ii welcomes the iCAN Team for their initiative and high organization quality of the international competition of inventions and innovation in Canada, iCAN.



Associação **Angolana**
de Inventores e Inovadores

With our thanks and congratulations,

Bitombokele Lei Gomes Lunguani

President

Associação Angolana de Inventores e Inovadores (A@ii)

GENERAL OUTLINE

THE EVENT

International Invention Innovation Competition in Canada, iCAN is the representative official event of Canada under the honorary patronage of the International Federation of Inventors' Associations (IFIA) and World Invention Intellectual Property Associations (WIIPA). The event is locally supported by Innovation Initiative Co-operative Inc. The Inventors Circle in Toronto. The launching purpose is to provide an invention exhibition platform in Canada for both local and overseas inventors, allowing them to showcase their inventions, innovative products, and scientific research projects. The event offers of an all-around program: invention exhibition, seminar and award ceremony. The aim is to encourage Canadian inventors to involve in such international inventors' activities, and enable overseas inventors to expand their range of international activities and event participation in Canada.

THE ORGANIZER

Toronto International Society of Innovation & Advanced Skills (TISIAS) was established in 2013 with a purpose to promote international activities for Canadian and American inventors primarily through participating in events and exhibitions organized by inventors associations, universities, forums and scientific institutes located around the world. For the past 5 years, TISIAS has been participating in more than 48 international invention exhibitions held across Asia and Europe, supporting students and academia, entrepreneurs and businesses to introduce, promote and leverage their creative works at global platforms. Since 2016, TISIAS organized its international event "iCAN" in Toronto, Canada to continuously offer more activity grounds for inventors and shape a new cultural awareness through innovation and creative thinking.

iCAN 2018 "THE 3RD EDITION"

EVENT	The 3 rd International Invention Innovation Competition in Canada, iCAN 2018
ORGANIZER	Toronto International Society of Innovation & Advanced Skills (TISIAS)
SUPPORTER	International Federation of Inventors' Association (IFIA) World Invention Intellectual Property Associations (WIIPA) Innovation Initiative Co-operative Inc. (IIC)
DATES	The Preliminaries: January 15 – July 15 / The Finals: September 1 @ 9:30am – 6:30pm
VENUE	North York Memorial Community Hall – North York, Toronto, Canada
PROGRAM SCHEDULE (SEPT. 1)	09:30 –10:30 Participants Arrival & Check-in 09:30 –11:00 Setting Up Exhibits and Posters 11:00 –12:00 Opening & Jury's Introduction 12:00 –12:30 Short Break & Jury Meeting 12:30 –16:00 Exhibition and Judging On-Site 16:00 –17:00 Seminar by the Featured Speaker 17:00 –18:30 iCAN2018 Award Ceremony 18:30 –19:00 Group Photo & Tear Down <i>* The schedule may have slight time differences on the day</i>

DELEGATIONS & CONTRIBUTORS

Romanian Inventors Forum (FIR)	HOW Creative USA
Croatian Inventors Network (SHI)	Association of Thai Innovation and Invention Promotion (ATIP)
Turkish Inventors Association (TÜMMİAD)	Indonesian Invention & Innovation Promotion Association (INNOPA)
Lodz University of Technology Poland	First Institute of Researchers and Inventors in I.R. Iran (FIRI)
The Education University of Hong Kong	EUROBUSINESS-Haller Poland
Korea Invention Academy (KiA)	INVENTARIUM – SRD Security, Research & Development Portugal
Korea Invention News (KINEWS)	International Innovation Club “Archimedes” Russia
Afghanistan Inventors Association (AIA)	Moscow City Organization (VOIR) Russia
Uncle Bugs Inventor Academy Malaysia	International Intellectual Property Network Forum (IIPNF)
NU Innovations Canada	Taiwan Invention Intellectual Property Association (TIIPA)
Accent on Skills Consulting Canada	Congolese Association of Inventors and Innovators (@Cii)
John III Sobieski Secondary School Poland	Malaysian Research and Innovation Society (MyRIS)
IM MAKER Education Hong Kong	Angolan Association of Inventors and Innovators (A@ii)
OFEED Morocco	Macau Innovation and Invention Association (MIIA)
Indian Innovators Association (IIA)	The First Institute of Canadian Inventors (FICI)
Vietnam National University	Vision in Green Canada
Junior Achievement Moldova	Inventors College Organization Canada
Black African Museum	Lebanese Innovators Society (LIS)

iCAN 2018 JURY COMMITTEE

Howard A. Lim HOW Creative / Co-Chairman of the Jury	Bob Huybrechts Innovation Initiative Co-operative Inc. / Co-Chairman of the Jury
Andrei Victor SANDU Romanian Inventors Forum / Vice-President of the Jury	

JURY MEMBERS

Neven Marković Croatian Inventors Network	Jerzy Maduzia John III Sobieski Secondary School
Mike McFarthing Innovation Initiative Co-operative Inc.	Hok Ming Kwan The Education University of Hong Kong
Adam Rylski Lodz University of Technology	Phan Quoc Nguyen Vietnam National University
Dave Boyle Innovation Initiative Co-operative Inc.	Ayhan Saeid Dadashzadeh Turkish Inventors Association
Masoud Shafaghi International Federation of Inventors' Associations	Ihsan Edan Abdulkareem Alsaimary University of Basrah
Babak Khodaparast The First Institute of Canadian Inventors	Eddie Shih World Invention Intellectual Property Associations / Junior Jury
Majid El Bouazzaoui OFEED, Morocco	Augustine SEMENESCU University Politechnica of Bucharest
Megaria Augustina Indonesian Invention and Innovation Promotion Association	Victoria Ramzy Habib Attia Invention Exhibition Specialist
Otto Schmidt Inventors College Organization	Wagdy Rizk Ghali Rizk Invention Exhibition Specialist
Amedeo Pozzebon Inventors Circle	Mohamed Ashry Mohamed Abdelfatah Mechanical Engineering Specialist
Nour Lattouf Lebanese Innovators Society	Abdul Syukor Bin Abd. Razak Universiti Malaysia Pahang

LIST OF AWARDS

CLASSIFICATION	TITLE OF AWARD		
“The Finals” TOP 3 SELECTIONS	Grand Prize	Semi-Grand Prize	IFIA Best Invention Award
“The Finals” BEST INVENTION (INDIVIDUAL)	Best Young Inventor Award		Best Female Inventor Award
“The Finals” BEST INVENTION (TOP 4 CONTINENTAL)	Best Invention of North America / Europe / Asia / Africa 4 awards		
“The Finals” BEST INVENTION (TOP 12 NATIONAL)	Best Invention of Malaysia / Egypt / Iran / Taiwan / Hong Kong / China / Iraq / Romania / Thailand / Poland / USA / Croatia 12 awards		
“The Finals” SPECIAL AWARDS	iCAN 2018 Special Inventor Awards International Delegations’ Special Awards		
“The Preliminaries” AWARDS	Gold Medal Award	Silver Medal Award	Bronze Medal Award



International Invention Innovation Competition in Canada
iCAN-TORONTO, CANADA

SUPPORTED BY



ORGANIZED BY



MONITORED BY



INTERNATIONAL DELEGATIONS & CONTRIBUTORS



WELCOME TO iCAN 2018 – SEPTEMBER 1 in TORONTO, CA



International Invention Innovation Competition in Canada
iCAN-TORONTO, CANADA

PARTICIPATING COUNTRIES 2018



42 COUNTRIES

AFGHANISTAN	INDONESIA	POLAND
ANGOLA	IRAN	QATAR
ARMENIA	IRAQ	RUSSIA
AZERBAIJAN	JORDAN	ROMANIA
BOSNIA & HERZEGOVINA	KOREA	SAUDI ARABIA
BULGARIA	LEBANON	SRI LANKA
CANADA	MACAU	SUDAN
CHINA	MALAYSIA	TAIWAN
CONGO	MEXICO	THAILAND
CROATIA	MOLDOVA	TUNISIA
EGYPT	MONGOLIA	TURKEY
GERMANY	MOROCCO	UAE
HONG KONG	NEW ZEALAND	USA
INDIA	PHILIPPINES	VIETNAM



Because We Can



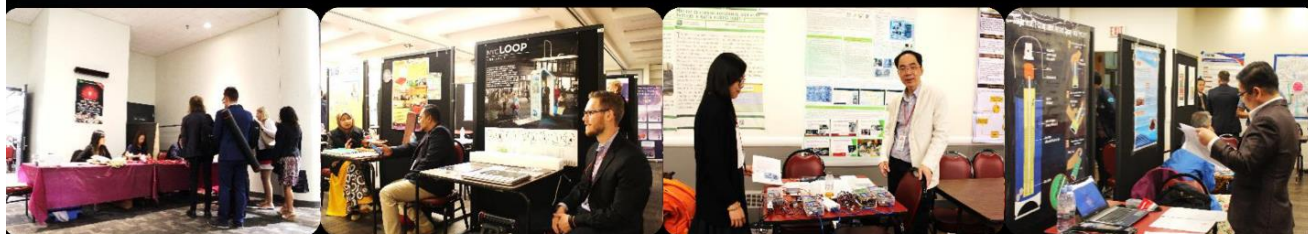
International Invention Innovation Competition in Canada
iCAN-TORONTO, CANADA

THE FINALS

THE FINALISTS' EXHIBITION, SEMINAR & AWARDS

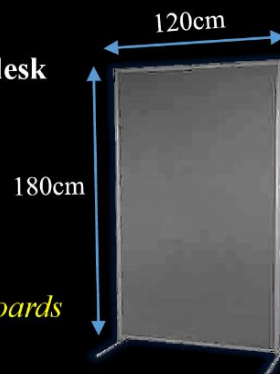
I. GENERAL INFORMATION

- Date/Time: September 1st from 10am ~ 6pm (exhibitors set-up starts from 9:30am)
- Location: **North York Memorial Community Hall** (address: 5100 Yonge St., North York)
- *Located 1 level below North York Central Library within North York Centre*



II. EXHIBITOR PROCEDURES

- Set-up starts from 9:30am, **please check in first at the reception desk**
 - Pick up your exhibitor badge(s) and event materials given
- Exhibit area will be assigned upon check-in (wall or poster board)
 - Includes: vertical space for poster, table space and chairs
 - **Poster size: A1 (recommended)** or A0 poster size
 - Tapes for walls and Velcro dots for boards will be provided
- *Please do not use any other tapes/glue that may damage walls & boards*
- Exhibit space for group exhibitors may be amalgamated together
- Electricity (110V) and free Wi-Fi connection available for collective use



III. SEMINAR

"BRAND IT RIGHT, IGNITE YOUR PROFITS WITH HOWARD A. LIM"

Are you thinking too small when it comes to your brand? As the foundation of your company, your brand has the power to influence sales, shareholder value, and relevancy. Your brand is a key factor to build your business for long-term success. Fortune 500 branding and business expert Howard A. Lim will show you how to exponentially attract customers, strategic partners, and investors. You'll gain insights on how to leverage your brand and business--regardless of what product or service you sell – to give you a competitive edge and maintain a winning strategy.

Howard A. Lim is an award-winning business & branding strategist, and the author of Authentic Branding®. His clients include entrepreneurs, business owners, and Fortune 500 brands including Apple, Disney, Oracle, and HBO, to name a few. Since 1987, Howard Lim has earned his reputation as a disruptive innovator, and his boutique firm, HOW Creative. He presents actual before-and-after case studies that have influenced billions of dollars in revenue, and value for companies he has served.

FEATURED SPEAKER



HOWARD A. LIM

President of HOW Creative
iCAN Co-Chairman of the Jury



www.howcreative.com



IV. TENTATIVE PROGRAM

09:30 – 10:30	Participants Arrival & Check-in
09:30 – 11:00	Setting Up Exhibits and Posters
11:00 – 12:00	Opening & Jury's Introduction
12:00 – 12:30	Short Break & Jury Meeting
12:30 – 16:00	Exhibition and Judging On-Site
16:00 – 17:00	Seminar by the Featured Speaker
17:00 – 18:30	iCAN 2018 Award Ceremony
18:30 – 19:00	Group Photo & Tear Down

** The schedule may have slight time differences*



V. AWARD CEREMONY VI. EVALUATION RUBRIC

- | | |
|---|--|
| <ul style="list-style-type: none">▪ Gold/Silver/Bronze Medals▪ International Special Awards▪ Best Invention Awards▪ Semi-Grand & The Grand Prize | <ul style="list-style-type: none">▪ Oral Presentation Clarity & Coherence▪ Key Innovation and its Significance▪ Originality and Complexity▪ Proof and Supporting Data |
|---|--|

The 3rd International Invention Innovation Competition in Canada, iCAN 2018



iCAN 2018

List of Exhibits

Alphabetically by Country (pg. 17~61)

COUNTRY	PG	COUNTRY	PG	COUNTRY	PG
Afghanistan	17	Indonesia	30	Poland	49-51
Angola	17	Iran	30-33	Qatar	51
Armenia	17	Iraq	33-35	Russia	52
Azerbaijan	18	Jordan	36	Romania	52-54
Bosnia and Herzegovina	18	Korea	36-37	Saudi Arabia	54
Bulgaria	18	Lebanon	37	Sri Lanka	54-55
Canada	18-19	Macau	37-38	Sudan	55
China	20-22	Malaysia	38-46	Taiwan	55-58
Congo	22	Mexico	47	Thailand	58-60
Croatia	22-23	Moldova	47	Tunisia	60
Egypt	23-27	Mongolia	47	Turkey	61
Germany	27	Morocco	48	UAE	61
Hong Kong	27-29	New Zealand	48	USA	61-62
India	30	Philippines	48-49	Vietnam	62

AFGHANISTAN

AF-01	AUTHOR(S)	Mustafa Rezaie / Mohammad Mahdy Dellawari
	ORGANIZATION	University of Kabul, Afghanistan
	TITLE OF INVENTION	Fluid purification continuous
Solids in various liquids and fluids are one of the major problems. Therefore, it is obvious that many studies have been carried out in order to solve this problem, But all of these studies have led to the production of filtration systems, which itself involves heavy maintenance and replacement.		

ANGOLA

AO-01	AUTHOR(S)	BITOMBOKELE LEI GOMES LUNGUANI / CENTRO MANDOMBE
	ORGANIZATION	ANGOLAN ASSOCIATION OF INVENTORS AND INNOVATORS (A@ii)
	TITLE OF INVENTION	MALONDA.01: The mobil laboratory of physic and mathematic, and conversor of angle from 3D into 2D
Malonda.01 is a portable laboratory of physics and mathematics that allows you to study behavior of angles and its applications, throughout the conversion process of angle from 3 dimension into 2 dimension. In other side, Malonda.01 is a converter of angles, from 3D into 2D through the projection of a luminous from the flashlight focused on the angular structure that undertake a circular movement from 0° to 180°.		

AO-02	AUTHOR(S)	HELDER DA SILVA
	ORGANIZATION	ANGOLAN ASSOCIATION OF INVENTORS AND INNOVATORS (A@ii)
	TITLE OF INVENTION	WIRELESS BLACK BOX
Usually in case of an air accident, the black box. But the information is only available when the black box is located physically. In this way, the wireless black box as a system for aircraft can provide information without the need for physical contact with the device.		

AO-03	AUTHOR(S)	Manuel Henriques Bongo
	ORGANIZATION	ANGOLAN ASSOCIATION OF INVENTORS AND INNOVATORS (A@ii)
	TITLE OF INVENTION	Adaptable racket system for windows and more.
It is a very simple and economical system for its construction, due to the problems experienced in Angola and Africa in general because of mosquitoes, causing several diseases and increasing the mortality rate. We created this idea of putting racket systems in the windows and not only so we can reduce the amount of mosquitoes and insects in a significant way. The system is self-sustained by the solar system.		

AO-04	AUTHOR(S)	António Calenguluca
	ORGANIZATION	ANGOLAN ASSOCIATION OF INVENTORS AND INNOVATORS (A@ii)
	TITLE OF INVENTION	Cactus the Gold of Desert
The cactus plant the botanic family called by Cactaceae; it has got about 84 kinds, but the cactus plant of Namibe desert has got some peculiar aspects or mean, in his chemistry and physical structure. As we can see, this is a good and an interesting plant, because it treats diseases such as: skin cancer, tree man, born smear and also helps rubber industry in production of rubber.		

AO-05	AUTHOR(S)	Delfim Fernando da Costa
	ORGANIZATION	ANGOLAN ASSOCIATION OF INVENTORS AND INNOVATORS (A@ii)
	TITLE OF INVENTION	Hydraulic jack innovated
This hydraulic jack is to help the driver change of tire, when the tire break, this case the driver does not need use the jack to change of tire. Its mean that the hydraulic jack can change of tire without the driver.		

AO-06	AUTHOR(S)	António Manuel Kawele
	ORGANIZATION	ANGOLAN ASSOCIATION OF INVENTORS AND INNOVATORS (A@ii)
	TITLE OF INVENTION	From trash to luxury
The garbage project the luxury is a profitable and innovative project. Collect objects that other people consider as trash and transform in luxury. Use slippers spoiled, pet bottle, batteries, gas cans, beer cans, plastic bags, tubes of blood transfusion, damaged clock and beer caps, and more. With these objects, we turn folders backpacks, custom, custom watches slippers, porcelains, earrings, necklaces, apparel among other objects that we consider as luxury. We work for sustainable development of Africa by recycling and training, helping to fight hunger and appreciate our environment.		

ARMENIA

AM-01	AUTHOR(S)	Boris Aghaian Moghadam
	TITLE OF INVENTION	Multi Power Heating System(MPHS)
MPHS is a result of 10 years of work and experiments. It's built based on the standards of fan coil with the difference that it doesn't have a power house central system. So, it lowers energy loss and consumption tremendously, it works with electricity which is considered a clean energy source. Due to its unique design it has a true COP of 3, so all its features together make the device a much more efficient and environment-friendly system.		

AZERBAIJAN

AZ-01	AUTHOR(S)	Mehdi Farzpourmachiani / Dr. Akbar Tahriri Masouleh / Pooyan Piredeir / Ali Farzpourmachiani / Mahmoodreza Gorji
	ORGANIZATION	Azerbaijan Inventors
	TITLE OF INVENTION	An adobe designed to trap and absorb the moisture resulting from air and soil getting warm and cold
<p>This is a method for performing a physical action based on which an adobe with certain features is designed and used. The proposed design is a method for trapping and absorbing soil moisture and air moisture which is produced as the result of air and soil getting warm and cold during the 24 hours of a day without use of any electricity and chemicals preserving environment as well as natural resources, to increase the quantity and quality of the life of animals and to make an attempt to prevent drought. This Dew-trap adobe (New Moisture-absorbent adobe) can be used in different climates such as deserts and dry lands and under different weather conditions and as a very simple adobe can even help eliminating deserts by planting it in the ground and making the soil more wet and also using it around the roots of the plants which enhances their growth and even could be an automatic irrigation system in despite of using any equipment, electricity and machinery which might not be environment-friendly and cheap expenses to use them in large amounts.</p>		

BOSNIA AND HERZEGOVINA

BA-01	AUTHOR(S)	Drago Ćosić
	ORGANIZATION	SMART&INVENT Foundation
	TITLE OF INVENTION	FUELS and combustible MIXTURES as replacement for fossil fuels in thermal power plants, industrial facilities and central heating furnaces
<p>Application of this new hydrogen based fuel has been tested in practice. It is an ecological contribution to pollution reduction in existing coal based thermal power plants. These power plants are the biggest contributors to pollution of the environment in the world today which inspired the idea to use HYDROGEN INDUSTRIAL, the new hydrogen based fuel in the furnace burners of thermal power plants, thus replacing between 50 and 60 percent of lignite. The goal of this work is to encourage potential investors in creating conditions for industrial application of this fuel.</p>		

BA-02	AUTHOR(S)	Drago Ćosić
	ORGANIZATION	SMART&INVENT Foundation
	TITLE OF INVENTION	PHOTON ENERGY FOOD FOR FUEL CELLS
<p>This invention enables sufficient quantity of hydrogen for fuel cell of 2.5kW, which is convenient for mobile network base stations. Over 95% of mobile network base stations in developed countries use diesel generators as alternative source of power supply. Diesel generators are expensive and pose logistical problems to mobile network operators. The best alternative clean energy source are fuel cells and this patented technology produces sufficient quantity of hydrogen for the cells without storage requirements.</p>		

BA-03	AUTHOR(S)	Drago Ćosić
	ORGANIZATION	SMART&INVENT Foundation
	TITLE OF INVENTION	LIVING FOR TODAY THINKING OF TOMORROW
<p>This invention references device and method of hydrogen and oxygen mixture production under influence of UV radiation on micro crystals of water ice. The source of light is under 200 nm wavelength with concentrated transfer in light conductors to one or more points of ice micro crystals. The amount of required energy is multiple times lower than in electrolysis or other, thermal processes. Resulting excess hydrogen in this process can be used as food for fuel cells in the power generators.</p>		

BULGARIA

BG-01	AUTHOR(S)	Veronika Ivanova / Andriana Surleva / Fatos Rexhepi
	ORGANIZATION	University of Chemical Technology and Metallurgy / University of Mitrovica "Isa Boletini", Republica of Kosovo
	TITLE OF INVENTION	Ion chromatographic determination of inorganic anions in waters & wet depositions from the region of Bulgaria
<p>An ion chromatographic method for determination of fluoride, chloride, nitrate and sulphate in waters was described. An automated 850 IC Professional, Metrohm system equipped with conductivity detector after chemical and carbon dioxide suppression was used. The main analytical characteristics were estimated for each of studied analytes. The trueness of the method was estimated by analysis of certified reference material for soft drinking water. Recovery test was performed on spiked drinking water samples. An uncertainty was estimated. The method was applied for analysis of drinking water before and after chlorination, high mountain lakes and urban wet depositions.</p>		

CANADA

CA-01	AUTHOR(S)	Luis M. Duarte
	ORGANIZATION	LESJ Inc.
	TITLE OF INVENTION	Rockit Single Foot Skate
<p>Compact, lightweight active transportation powered by human energy. This hybrid cross between a skateboard and roller skate, is ideal for urban and school campus settings. Reduce carbon emissions and ride the Rockit Single Foot Skate.</p>		
CA-02	AUTHOR(S)	Behrouz Rahimi
	ORGANIZATION	NU INNOVATIONS INC.
	TITLE OF INVENTION	Medical device monitoring system
<p>This device will monitored correct position of medical components which are attached to patients such as serum.</p>		

CA-03	AUTHOR(S)	Behrouz Rahimi
	ORGANIZATION	Nu Innovations Inc.
	TITLE OF INVENTION	Knee prosthesis with cooling system by name of comfort walk
<p>This prosthesis use a new automatic cooling system which it has longer power saving up to 9 hours for user also by using of special electronic circuit ,inside of silicon liner will be regulated the temperature for silicon liner automatically. In case of rising the temperature, the thermal sensor actuate the regulator and let the coolant move through space of silicon line also the cooling space has special design and not in touch with skin directly and provide more comfort for user as well. The cooler has specific design to provide more heat transferring with high efficiency.</p>		

CA-04	AUTHOR(S)	Helya Bahavar / Mobina Bidi
	TITLE OF INVENTION	White light emitting Quantum Dots
<p>A quantum dot is a crystal, a few nonometers wide, which is a tiny speck of matter that glows when they are stimulated and they are so small that it's effectively concentrated into a single point(in other words, it's zero-dimensional). Our main purpose is production of white-light emitted by quantum dots that can be the basis of Production of a simple lamp with quantum dots that uses less energy and produces more lighting. We glow UV beam to our quantum dots to produce white light. We should use quantum dots with different diameters to earn white light and this point makes the process of synthesising a bit harder. "The more the various of quantum dots' diameter, the harder the process of synthesising"</p>		

CA-05	AUTHOR(S)	Karen Rahnemoon / Soroush Jahanzad / Seyed Parsa Neshaei / Poorya Abbasi / Pooyan Piredeir
	TITLE OF INVENTION	YEKAN, A Novel School Management and Communication System
<p>Yekan is a multipurpose school management system that includes an app designed for students, parents, teachers, school staff, and drivers to make their everyday interactions easier. It also includes a web-based Portal with all its features, and a website, provided to the school directors. Yekan aims to eliminate the unnecessary effort put into everyday tasks of every individual by forming a powerful link between them, and as a result it removes the limits of time and space, and improves the schools' general efficiency. One of the other key goals of Yekan is to make the schools greener by reducing the overall consumption of paper in everyday activities in schools. Yekan is easily accessible on a broad range of devices including tablets, phones and smartwatches running Android, iOS, and watchOS, and is also available on the web, so everyone will always stay up to date effortlessly.</p>		

CA-06	AUTHOR(S)	PHILIP HA
	ORGANIZATION	The Nationalux Research Center
	TITLE OF INVENTION	The music player that converts stereo to produce surrounding sound in all AR environment
<p>AR music service platform can recognize album covers, posters, QR code and other images through mobile or Microsoft Hololens as well as analyze downloaded or streamed mp3 frequency to deliver a more powerful and spectacular sound than previous stereo files. The platform can upmix the files into various audio signals like 5.1-7.1 channel and distinguish direction, volume, and time-lag of files.</p>		

CA-07	AUTHOR(S)	KIL HA YOON
	ORGANIZATION	LOTUS PROSUMING MANAGEMENT / Cheong Won Middle School
	TITLE OF INVENTION	KIHEZUNA
<p>The present project features an innovative example of character art by creatively designing a character inspired by the contents of "Kairo's Sculpture" the "God of Opportunity" symbolizing a character that brings good luck and opportunity. There is a tail in the head of the character and a tail in the part of the hips. This symbolizes the charm of opportunity and good fortune. The mystic character gives good fortune and opportunities to anyone who touches its head and tail. This character is symbolic, and it is created as a character that brings more chance and good lucks to children, as well as everyone else to have excellent and superior abilities and good well-being lives ahead.</p>		

CA-08	AUTHOR(S)	LEE WONPYO
	ORGANIZATION	LOTUS PROSUMING MANAGEMENT
	TITLE OF INVENTION	Variable hanger to secure space for drying object
<p>Generally, in order to dry an object we use drying hangers used for storing clothes in closets. However, when the hanger is used, the thickness of the clothes hanger is too small, so that when the objects are placed for drying, they are overlaid because the space for the drying object is narrow and the drying efficiency is reduced, and the space for ventilation is not secured, This is the invention that solves this inconvenience by innovatively including a sub-hanger feature in the existing clothes hanger which helps to secure more space between drying objects.</p>		

CA-09	AUTHOR(S)	Behshid Behkamal
	ORGANIZATION	NU Innovations Inc.
	TITLE OF INVENTION	A context-based method for visualizing business process on the map/patent Number: US 62721509
<p>The main goal of our idea is to help companies understand data by visualizing different perspectives of data and process on map. This will enable companies to easily gain insight into undetectable spatial trends and the relationships between stored data about a location and the events that happened in the same location.</p>		

CHINA

CN-01	AUTHOR(S)	Wang Haofan / Deng Xiaoqi / Chen Sitong / Chen Mohao
	ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School
	TITLE OF INVENTION	Automatic Wise Window Shutter
Traditional windows need to be closed on rainy days. Sometimes, when it rains heavily and we are not at home with windows left open, rain water enters our house that leads to security risks and appliances safety. The furniture and floor get wet. In some instances, water droplets fell into electrical appliances causing malfunctions and even fire when unknowingly used the appliances. At the same time, as the modern environment deteriorates, natural disasters like acid rain also bring unpredictable disasters. Until then, an automatic window shutter is necessary.		
CN-02	AUTHOR(S)	Qu HongJin / Li YingXi / Li MengXue / Zhang Yunyu / Pu Rui
	ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School
	TITLE OF INVENTION	Defensive Lipstick Tool
A dual purpose designed lipstick that if you turn it in the clockwise direction, the real lipstick comes out while anticlockwise direction, a small blade will appear for protection purposes especially if women are out and needs gadget for defence of themselves against dreadful people.		
CN-03	AUTHOR(S)	Li Sirui / Wang Zhuoran / Dai Decheng / Yang Zhien / Ren Si Yang
	ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School
	TITLE OF INVENTION	Emergency Electronic Charging Machine
It is converted from the phone charging machines used nowadays. It is constructed by more than one phone charging machines. The construction is series connection of circuits of those phone charging machines. Its purpose is offering more voltage which is enough to supply electricity to computers or phones in order to last long when utilize for professional works and games.		
CN-04	AUTHOR(S)	Li Sirui / Yu Junzhe / Wang NuokeRan / Yang Haolan
	ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School
	TITLE OF INVENTION	Green Umbrella
Green Umbrella is an architectural design for modern and future world. Plants cover most of the area of the surface of the building and use renewable energy to run the facilities of the building. This is for both commercial and accommodation use.		
CN-05	AUTHOR(S)	Zhong Yi / Zhang Jinxuan / Wang Yaomeng
	ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School
	TITLE OF INVENTION	HealTea Toothpaste
Many of the ingredients of toothpaste are harmful to our health, and some chemicals may cause many diseases. Now the toothpaste on the market is based on Industrial Chemistry, not medicine, which is worrying and afraid. Eating toothpaste will cause great harm to the human body. We make green and healthy toothpaste through baking soda, coconut oil and tea herbal with Chinese characteristics. It's time to go back to the origin of toothpaste, the natural handmade and even toothpaste that can be eaten or swallowed.		
CN-06	AUTHOR(S)	Wang NuokeRan / Xu JiaWei / Zhang SiQi / Zhang ZongYi / Yin QianYe
	ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School
	TITLE OF INVENTION	Multi-feature ActiveWear
This is an intelligent sportswear designed for marathon players and there are five main features of this sportswear. First is basic waterproof and rain proof function. Second, it has invisible bag for thirsty marathoners to provide water, more convenient and quick. Third, it has function for sanitation. This is a great help for the marathoners. Fourth, the function of photosensitive discoloration is based on the needs of different sports sites. At night, for example, it can be turned into fluorescent color. Fifth, person's physical condition can be perceived just like a fitness band also this kind of sportswear can even go beyond.		
CN-07	AUTHOR(S)	Li Yichen / Wang Yiduo
	ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School
	TITLE OF INVENTION	Remote Artificial Intelligence Medical Problems Analysis System (RAIMPA System)
RAIMPA System is designed for people in poorer areas as well as those with better medical conditions based on the phenomenon that advanced medical technology fails to cover most mountainous areas, using the combination of artificial intelligence, live video and augmented reality. This system is mainly composed of three parts: a data base, hospital facility and personal application. The establishment of RAIMPA System will benefit the public by providing accurate personal health status analysis without going into hospitals in- person.		
CN-08	AUTHOR(S)	Zhu Lin / Liao Yuhang / Liu Mingrui / Zhao Ziyu / Wu Zidan
	ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School
	TITLE OF INVENTION	Self-Activated Alarming Lights on Helmet
The self-activated alarming kit is full- featured innovation which consists of four different- colored lights, 2 tele- controllers and several long- lasting batteries. Blue lights at the back of the helmet constantly shine once the bicycle is proceeding and when cyclists slow down the speed, red light shines. As long as making a turn, corresponding yellow light shines, indicating the direction it turns. In order to satisfy customers, we make the entire system small, removable, waterproof and good-looking. It's invented to reduce the risk of having serious traffic incidents.		

CN-09	AUTHOR(S)	Yang Haolan / Wang Haoyu / Luo ShengJun / Liu TianYu / Li Xun
ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School	
TITLE OF INVENTION	Self-Protect Phone Case	
A nozzle is attached to a phone case which can be filled with any liquid like perfume, mosquito repellent and pepper spray for self- protection. Phone case is an advantage since people nowadays are into their phones most of the time. It's a fine tool to carry small amount of liquid which you can use in any situation either for aesthetic or self-defence.		
CN-10	AUTHOR(S)	Yang Haolan / Wang Haoyu / Luo Sheng Jun / Liu Tian Yu / Li Xun
ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School	
TITLE OF INVENTION	Solar-Powered Air Cleaner	
Air cleaner provides filter and cleans air that enters the house. The engine's power of the air cleaner comes from the sun which is solar energy and through the use of solar panels the invention run and function. The use of filter with special features the will move to clean the air entering the house.		
CN-11	AUTHOR(S)	Fu Yangjingming / Zhou Yan / Luo Zixi / Li Wangxinyue / Wu Wenrui / He Xinyi
ORGANIZATION	Sino-Canadian Program, Chengdu Foreign Languages School	
TITLE OF INVENTION	Ultrasound Deinsectization & Irrigation System	
Ultrasonic waves vibrate 2 million times per second and turn the water moisture into superfine particles. The particles then pass through a pneumatic device and diffuse into the air. The particles will be collected by the arcade roof of the greenhouse then they liquefy. Excessive water will pass the shed at the bottom of slope and basify by the ultrasonic wave that is how the irrigating system works.		
CN-12	AUTHOR(S)	Hualong Guo / Hsien-Wei Tseng / Zhang Ling / Yung-Wen Lee / Ying Xie
ORGANIZATION	Longyan University / Fujian Xindong Biotechnology Co.Ltd	
TITLE OF INVENTION	Bluetooth Fitness Tracker with Built-in ECG Heart Rate Monitor	
Monitor the health status, Real-time heart rate values display and ECG waveforms, wear signal quality display. Scientific movement, safe and efficient Enhance weight loss and fitness program; Provide scientific data for exercise results.		
CN-13	AUTHOR(S)	Hsien-Wei Tseng / Chih-Hsien Hsia / Zhang Ling / Ming-Hsueh Chuang / Zhengyan Lin
ORGANIZATION	Longyan University / Fujian Xindong Biotechnology Co.Ltd	
TITLE OF INVENTION	Intelligent iBeacon Indoor-Positioning and Navigating System	
This product uses iBeacon technology to realize the indoor positioning and location, the guidance of product results can actually use in shopping mall, exhibition hall, office buildings and so on, parking lot, users just download the APP can quickly found in the interface to the required items or address, and follow the guide to find the location system.		
CN-14	AUTHOR(S)	Tsai-Hua Kang / Hsien-Wei Tseng / Congchong Guo / Po-Han Wu / Xin Wang
ORGANIZATION	Longyan University / Zhikeda(xiamen)Technology Co.Ltd.	
TITLE OF INVENTION	Voice-Controlled Smart Home System	
This product is a set of lighting control, home appliance control, safety protection, environmental monitoring; Burglar alarm is equal to a smart home system. To realize the flexible control of the remote, wireless and voice of home appliances, give the new experience of digital interactive home life with its own characteristics in service, security and management.		
CN-15	AUTHOR(S)	Baohui Chen / Hsien-Wei Tseng / Zhang Ling / Yu-Chien Hsieh / Zhilong Zhao
ORGANIZATION	Longyan University / Zhikeda(xiamen)Technology Co.Ltd.	
TITLE OF INVENTION	Wireless Intelligent Door Access Control System	
Convenience: Traditional physical keys, Fingerprint, Password, IC card. Remote App unlock and voice unlock. Security. Enter the wrong password 6 times the system lock. Illegal unlock alarm function. Unlock SMS push, when people unlock information push notice. FPC live fingerprint semiconductor single head to prevent duplication of finger film. Support virtual password to do anti-peeping. Equipped with super class B lock cylinder. Remote unlock secondary encryption to ensure its security. When the battery is low, the door lock + APP SMS push alarm prompts to replace the battery. Linkage scenes, unlock the lights to open appliances, shut off the lights off the home appliances. Remote authorization to unlock, easy to visit friends and family. Unlock a record of a key query.		
CN-16	AUTHOR(S)	Wai-Kit Ming / James Wu / Zherui Liu / Xiqi Yang / Li Jingzhen / Xun Yihao / Zhang Chunye
ORGANIZATION	Yun Ya (Guangzhou) Medical AI Technology Co. Ltd.	
TITLE OF INVENTION	Food nutrition content detection based on dual camera	
The present invention aims to identify food species and nutrients in a new way through dual camera and deep learning algorithm. Nowadays, people pay more and more attention to the nutrition of food, but the existing food nutrition testing technology has the defects of food size calculation, unable to meet the urgent demand of the crowd in terms of accuracy. Therefore we through the dual cameras which now gradually popularization on mobile phones, allowing AI to conduct in depth learning and calculate with the food photos taken from different angles. To be more convenient, more accurately identify the nutritional content of food with a new research direction, making up for the deficiencies of the existing technology.		

CN-17	AUTHOR(S)	Wai-kit Ming / Zonglin He / Jialin Wu / Jinrun Pan / Huayao Ma
ORGANIZATION	Jinan University	
TITLE OF INVENTION	"Acu-Pediatrician", an AI-based Infantile Tuina Instrument with Associated Child Care Mobile APP	
The present invention is an artificial intelligence-based combined massage stick for use in administering an infantile tuina. Such stick can mimic the unique manipulation of infantile tuina, where a conveyor belt incorporated with a plurality of pads that act in concert to mimic the unique technique of "shove" and a terminal massage ball with the rippled pattern to "rub" and "press". A point-matrix force sensor is attached to the shell enclosing the conveyor belt and connected to the micro-CPU in the handle by the hardwired circuit, which can sense the vertical force exerted by pressing the instrument on the skin in the real time. The AI network internalized in the CPU can learn from the daily use and improve user experience gradually.		

CONGO

CG-01	AUTHOR(S)	MAMBIDI MBOUMBA / Yannick Marylin / NDINGA Landry Potain
	ORGANIZATION	Groupe Moboti Mayi
	TITLE OF INVENTION	MOBOTI MAYI
Mboti Mayi is an apparatus that generates water and works with two process: 1-First it consists to multiply an initial quantity of water. 2-Second it consists in producing water directly without an initial quantity of water.		

CG-02	AUTHOR(S)	NGANGA Ludovic
	ORGANIZATION	Congolese Association of Inventors and Innovators
	TITLE OF INVENTION	Electrical water battery
The electrical water battery is a generator of electricity that functions with composed reactive water as an electrolyte and generates continuously power of 1,5V per cellular.		

CG-03	AUTHOR(S)	GANFINA Marie Catherine
ORGANIZATION		Association NKAO-MBIALA A.N.M
TITLE OF INVENTION		Ameliorated natural dye
The natural dye exists everywhere, still with searches I came to discover this one. The present invention concerns a process that helps to obtain an indelible natural dye that consists in extracting the dye of bark, fruits, roots, leaves and herbs that can produce dye.		

CROATIA

HR-01	AUTHOR(S)	MATEJ BOSNJAK
ORGANIZATION		CROATIAN INVENTORS NETWORK
TITLE OF INVENTION		CALIBRATION OF ANGLE AND TILT (UMRKIN)
Invention consists of two separate devices (master or slave). The „master“ is placed on the main CNC axis that we want to set up as a reference, and the „slave“ is placed on the axis that we want to calibrate. The „master“ and „slave“ dislocation on all three axis can be read on the OLED screen or via the application on the computer.		

HR-02	AUTHOR(S)	MIRJANA BRLECIC
ORGANIZATION	PRIRODA LIJECI d.o.o.	
TITLE OF INVENTION	HYALURON+VITAMINS INTENSIVE REVITALIZING LINE	
Hyaluron in combination with vitamins A, B, C and E and herbal ceramides in the form of liquid crystals provides intense anti-aging effect, photoprotection and hydration of the skin. Innovation is based on natural ingredients and ecological cosmetics standards, environmental protection, efficient use of energy and production. Protects skin cell proteins with purified plant complexes. Improves microcirculation and skin immunity.		

HR-03	AUTHOR(S)	TOMISLAV BRONZIN
ORGANIZATION	CITUS d.o.o.	
TITLE OF INVENTION	C@N MOTION SMART CUSTOMER ENGAGEMENT	
Digital Platform with Gesture Controlled User Interface & Augmented Reality. C@N Motion Smart Customer Engagement is digital platform which enables innovative human-computer-human (HCH) interaction through natural user interface that uses gesture/voice commands instead of keyboard/mouse. Advanced algorithms detect user gender, age and sentiment to enable new channel of communication. Solution is applicable to wide range of industries: marketing, retail, ticketing, healthcare, education, etc.		

HR-04	AUTHOR(S)	JAKOV DAMJANOVIC / DRAGO SOSTAREC / IVAN KRKA
	ORGANIZATION	POSTANSKA I TELEKOMUNIKACIJSKA SKOLA
	TITLE OF INVENTION	DEVICE FOR MEASURING SOIL pH
Knowing correct pH value of the soil in order to optimize crop income using specific agro-technical procedures is crucial to have successful food production. We have constructed an innovative, cheap and sufficiently accurate device for measuring pH value.		

HR-05	AUTHOR(S)	ALMIR KARABEGOVIC
ORGANIZATION		ADLEJA d.o.o.
TITLE OF INVENTION		CONTRACEPTIVE SPIRAL FOR DOGS
Female dog's contraceptive intracervical device is coppered/silvered V-shaped spring with curved „wings“. PVC-thread is connected in the middle of spiral. Spiral, insertor, solid stick (pushing spiral out of insertor) are in sterile package. This way of preventing unwished pregnancy is a mechanical contraception, which acts in two ways: presence of spiral (as foreign body in organism), and copper/silver's electrochemical activity on spermatozoa.		

HR-06	AUTHOR(S)	MARKO KRAVAR
ORGANIZATION	TERMIST d.o.o.	
TITLE OF INVENTION	NAUTICAL EQUIPMENT	
UNIVERSAL BOAT FENDER CLIP (Simple mounting of the fender, time-saving, makes yachting easier) & SPECIAL MARINE TYPE CLOTHES "PEG" (Specially designed for use on sailboats and yachts)		

HR-07	AUTHOR(S)	VJEKOSLAV MAJETIC
	ORGANIZATION	DOK-ING d.o.o.
	TITLE OF INVENTION	MINING BULLDOZER – MVD-XLPD
The MVD Extra Low Profile (XLP) Dozer is designed as a very low profile, remote-controlled machine for multiple uses such as underground mining, construction, military and defence missions. Low profile and remote control makes it suitable for multipurpose tasks and missions.		

HR-08	AUTHOR(S)	MELITA PAVLEK-MOCAN / MIRA MOCAN
ORGANIZATION	COSMEL d.o.o.	
TITLE OF INVENTION	C COLLAGEN CREAM C-VITAMIN + HYALURON SKIN MATRIX RAPAIR	
This innovative product stimulates cell density and as a growth factor-like activity process repairs the skin matrix. Two major extracellular matrix molecules are collagen and elastin, also product reverses aging processes and gives natural moisturizing effect. Natural oils – Rose-Hip, Crambe, Carrot and Raspberry rich with A, B, C, E and K vitamins achieves such an effect, along with stable vitamin C derivate, Hyaluronic Acid, Crocus Chrystansus Bulb extract, Tangerine and Croatian mineral water.		

HR-09	AUTHOR(S)	ZVONIMIR VIDUKA
ORGANIZATION	ALTPRO d.o.o.	
TITLE OF INVENTION	LEVEL CROSSING PROTECTION SYSTEM RLC23	
Level crossing protection system RLC23 is an electronic microprocessor level crossing protection system. It consists of a central unit, train detection system, (half) barrier with control mechanism and light warning signals for road and railway track users. Level crossing protection system RLC23 is the ideal solution for installation on the existing unprotected or future level crossings with or without any signalling infrastructure. It is also an easy and convenient replacement for existing and old level crossing protection systems.		

EGYPT

EG-01	AUTHOR(S)	Engy Reda El Sayed Derbala
ORGANIZATION	Kafr El Sheikh STEM School	
TITLE OF INVENTION	Algae and Energy Extraction	
As known Over 96% of the energy Egypt uses comes from fossil fuels. But these fossil fuels will finish by about 25:50 years later. And about 98% of CO2 emissions resulted from fossil fuel combustion. So I worked on solving those problems by producing the biofuel (from the algae oil) as an alternative source of fossil fuel. The algae will solve the problem of the emission of CO2 because Algae are plants and they use it in the photosynthesis process. In addition, the growth of algae helps in the wastewater purification because they feed on organic materials which are the main problem in this water. And I work also on modification the growth media to obtain high lipids amounts in the algae. So I can say that I have one input (algae oil) and produce at least four products (biodiesel, biogas, glycerol which can be used in a lot of industrial products and remaining biomass which can be used as fertilizers).		

EG-02	AUTHOR(S)	Ahmed Fawzy Hassan Shahat Hussein / Toka Mohamed Kamel Mohamed
ORGANIZATION	Suez Advanced Technical School	
TITLE OF INVENTION	Anti-Toxic Robot	
The project prevents accidents caused by leakages of toxic gases resulting from petroleum and petrochemicals companies which causes threat to people's lives and the environment, so we thought of how to get rid of toxic gases and treat them chemically to convert the toxic gas to eco-friendly and unharful gases by exchanging the human resource with a robot. We made gas sensor circuit to know which place leak toxic gas and the concentration. When the concentration of toxic gas increase, the gas sensor circuit produces the warning signals to the workers, at the same moment to control room to call the robot to come in the leakage area.		

EG-03	AUTHOR(S)	Abdullah Gamal Mostafa Elafifi
ORGANIZATION	Youseef Gadallah Official Language School	
TITLE OF INVENTION	Treatment of rheumatoid arthritis by modification in the Tumor Necrosis Factor (TNF)	
The project is a scientific research to treat rheumatoid arthritis in a better way than the previous one without chemicals / side effects on humans.		

EG-04	AUTHOR(S)	Mahmoud Omar Mohamed Alaswaly
	ORGANIZATION	Secondary Decorative School
	TITLE OF INVENTION	Modified dividing device
The amendment is based on the non-use of any of the oxygen cylinders, but will depend on water from the extraction of oxygen.		

EG-05	AUTHOR(S)	Aya Sobhy Eid Mahmoud / Hayam Mohamed Mohamed Abdelhay
	ORGANIZATION	Maadi STEM School
	TITLE OF INVENTION	Optimizing Microbial Fuel Cell for Superconductive Hybrid Desalination
In this project, water desalination can be accomplished without electrical energy input; we can use bacteria found in sewage water as an electron source and organic matter as the fuel; "Microbial fuel cells (MFCs) technology", to desalinate water by reverse osmosis (RO) system which is modified to increase its membrane lifetime, flux rate and ions rejection. In order to minimize the energy that the system consumes, we replace the copper coil inside the pump's motor with a superconducting material (YBCO) to eliminate the resistance and prevent energy loss		

EG-06	AUTHOR(S)	Ahmed Osama Mohamed Mandour
	ORGANIZATION	Tark ibn zaid official language school
	TITLE OF INVENTION	Varicose veins multi-treat meant function device
My invention is a device that sucks the clotting blood from the disease veins to getting rid of it outside the body. And then a cannula is inserted inside saphenous vein. Then the affected part (diseased area) will inject locally with vitamin (C), vitamin (E) and vitamin (A). To restore the natural vein form again. Which Level injection of collagen at selective point at root of selective valves partially. Level injection of collagen at selective point at root of selective valves to partially return normal function. Then an elastic band is rolled around the place where the affected part (diseased area) from the knee to above it and removes after (2-3) hours at least. This elastic band compresses the veins and helps them to push the blood back to its normal paths until reaches the heart.		

EG-07	AUTHOR(S)	Mahmoud Yaser Muhammad Elhady gad / Ahmed Mahfouz Fathi
	ORGANIZATION	STEM ISMAILIA
	TITLE OF INVENTION	Making use of associated gas
In our project, we deal with one of the grandest challenges the world face nowadays which is the large amount of gas flared from many platforms. Our idea is collecting associated gas, in order to take the benefit of this amount of gas, and reduce the effect of global warming caused by gas.		

EG-08	AUTHOR(S)	Rawan Hanafy Ellackany
	ORGANIZATION	Kafr El Sheikh STEM High School
	TITLE OF INVENTION	Healing Without Feeling In D.M (Diabetes Mellitus)
There are 382million people worldwide having diabetes and they have problem in their healing process due to the weakness of blood supply. I made a drug is a spray which can help in building a new matrix in short time and help in generation of a new cells. This happened by combination of Heparan-Sulfate (H.S) and Beta-Sitosterol (B.S) as an active ingredients. After doing experiment on mice & determining the most effective dose of the drug from the results, this research is already showed that drug has less price and high efficiency of 83% from the strongest one in the emporiums. Consequently, it will help in healing in low time without any side-effect & the cells will generate by first intention.		

EG-09	AUTHOR(S)	Nada zain El abden ahmed
	ORGANIZATION	Kassam Amin secondary school
	TITLE OF INVENTION	CANCER STOP
In all types of cancer, some of the body's cells begin to divide without stopping and spread into surrounding tissues. Cancer cases reached to 8.2 million in 2012, therefore the study assumed that the mpt extract strengthens the immune response and may kill cancer cells and has no detectable side effect as compared to Chemotherapy. The aim of the study was to compare the anti-tumor effect and any associated side effects of this extract and conventional anticancer therapies such as cis-platin, 5-fu in vivo on. We calculated the rate of antioxidants, then we extracted the methyl extract and the water extract then we performed our experiments on different cell lines (prostate-colon-skin-breast-liver) and mice.		

EG-10	AUTHOR(S)	Mhrez Sayed Gad / Adel Hamdy Mohammed
	ORGANIZATION	Egyptian Inventors Society
	TITLE OF INVENTION	Fire Fighting Rocket
Firefighting rocket is very unique and it is the first of its kind to be used in Firefighting. Rockets to be used in peaceful activities not war or destruction.		

EG-11	AUTHOR(S)	Mhrez Sayed Gad / Adel Hamdy Mohammed
	ORGANIZATION	Egyptian Inventors Society
	TITLE OF INVENTION	Cleaning Fountain
This fountain has the ability to clean surrounding atmosphere, produce beautiful scents, music and wireless internet connection. This fountain electricity can be generated from solar energy via solar cells.		

EG-12	AUTHOR(S)	Osama Abd EL KADER AHMED MEETWALY
ORGANIZATION	The Ministry of Education – Egypt	
TITLE OF INVENTION	New innovation for the protection of the environment from Pollution and toxic gases	
From the risk of pollution from factories, this device protects the environment and incinerators, hospital and the transfer of toxic gases in the first carbon dioxide and sulfur dioxide, nitrogen oxides, particulate solid carbon is converted to the compounds according to agricultural soil. This device helps to protect the planet from the phenomenon of global warming, This device won a bronze medal from the Kuwait Science Club in the International Exhibition of Inventions in the Middle East.		
EG-13	AUTHOR(S)	Omar Mohamed Hamed El-Habbak
ORGANIZATION	El-Nasr Governmental Language School	
TITLE OF INVENTION	The Effects of a Pulsed Electric Field and D-mannose Sugar on Uropathogenic Escherichia coli	
Over 100 million people are infected with a UTI. The antibiotics which are usually used to treat UTIs are becoming ineffective, expensive, and have harmful side effects. In this experiment, a strain of Escherichia coli obtained from the urine of a patient suffering from a UTI is exposed to a pulsed electric field. This is done through several steps, such as first extracting the bacteria, then cultivating it in broth, placing it in an incubator, and finally exposing it to the electric field. This will be done by using electric frequencies (0.2, 0.3, 0.4 Hz) for one hour.		
EG-14	AUTHOR(S)	Mariam Nasser Kamal / Mostafa Rabei Fouda
ORGANIZATION	Menofia stem school	
TITLE OF INVENTION	Treating cancer by Nano nickel	
Researchers used gold nanoparticles to treat cancer but gold had some disadvantages like: gold don't exit from the body, expensive, some areas in body can't receive light so The alternative is to use a larger amount of gold to burn cancerous cell. We chose nickel to be our metal in this project because of its Properties. We also solve the problems that face gold by adding 3 proteins. After that nickel nanoparticles up to cancerous cell and laser hits the nanoparticle, so it become hot and burn the cancerous cells.		
EG-15	AUTHOR(S)	Talal Ibrahim Mohamed / Ibrahim Ashraf Hamed Hassona / Taha Rashawn / Ayman Sayed
ORGANIZATION	Science, Technology, Engineering and Math (STEM) October High school for boys	
TITLE OF INVENTION	PLANT-MICROBE INTERACTION FOR GENERATION OF GREEN ENERGY	
Nowadays, the world suffers a lot of grand challenges that threat it like pollution, urban congestion, the shortage of energy, etc. This happens due to multiple factors. However, energy production is considered an acute one as the production of energy has declined significantly all over the world generally and in Egypt especially. This change in the recent years affects Egypt's exportation of energy. Thus, this notable issue has to be solved as the world has to strive to fill its own needs. The idea of our solution depends on using plant-microbial fuel cell (P-MFC) that mainly relies on the interaction between plants' photosynthesis process and its commensal microorganism's mechanism to produce electricity resulting from the produced electrons by microorganisms. The design requirements are efficiency, eco-friendly and cost-effective produce green energy (bioelectricity) by using plant microbial fuel cells (PMFCs) in the soil.		
EG-16	AUTHOR(S)	ABDALLAH YASSER ELSAYED MOHAMED ABDELWAHAB / MAHMOUD IBRAHIM HASSAN ABOUSAIDA / AHMED BADAWEY AHMED HUSSIEH / AHMED NABIL AHMED ALOUFA
ORGANIZATION	Egyptian Marketing and Technology transfer	
TITLE OF INVENTION	Permanent self-energy	
In the application of permanent self-movement we can get mechanical movement and electrical energy without the need of fuel. The Idea depends on two main concepts the first concept is the directions rule of electrical current and magnetic moment and motion. The second concept is the super conductor material such as liquid nitrogen this type material has a high ability to conserve the electrical current and prevent it from losing as the resistance inside this material equal to zero. You may think it is not possible to get permanent motion. I am not far disagree with you but if we could keep the temperature of the superconducting material theoretically we will get the permanent motion as the basic concepts of physics said.		
EG-17	AUTHOR(S)	ABDALLAH YASSER ELSAYED MOHAMED ABDELWAHAB / ELMORSY MOHAMED ELMORSY ELHARTY
ORGANIZATION	Egyptian Marketing and Technology transfer	
TITLE OF INVENTION	Laser Cables	
Laser cable is a new technology for transporting energy by laser and it used instead of metallic cables which decrease the energy with increasing the distance because of the self-resistance for the metal. The concept is to transform the energy to a beam of laser and receive the beam signal by electrical transformer or an amplifier or any amplifying circuit to amplify the signal as the beam signal is weak. After amplification process we can reuse the output signal as an electrical signal. By this technique we can simplify our treatment with electricity and decrease the use of metallic wires.		
EG-18	AUTHOR(S)	Mahmoud Mohamed Ibrahim Abdelaziz
ORGANIZATION	Higher Institute of Management and Technology	
TITLE OF INVENTION	Fastest Internet in the world	
Receiving the Internet from the satellite via a mobile and fixed shower dish by installing the internet receiver. In a shower dish in a certain way they can determine the direction of the satellite and move directly towards the moon to collect the descending signals. From the satellite and vice versa on the focus of the copper-plated assembly of the signal and transform it into an Internet receiver by issuing an electromagnetic field. The receiver's input and correction in the direction of the opposite focus of the satellite and then the reception of the Internet by means of a signal that the device is converted to be suitable for the use of the Internet at a very high speed and can be controlled Remote Receiver.		

EG-19	AUTHOR(S)	Nasser Mohamed Hassan Alassar
ORGANIZATION	High Institute of Engineering	
TITLE OF INVENTION	Remote control of the heartbeat through device	
A device that works on the control of the heartbeat remotely developed by the pacemaker device by adding a chip connected to a program that controls and regulate the heartbeat remotely.		
EG-20	AUTHOR(S)	Salma moahamed allam ahmed
ORGANIZATION	Alshimaa language school	
TITLE OF INVENTION	Cancer treatment using immunotherapy	
The concept that the immune system can recognise tumour cells and either eliminate them (tumor immune surveillance) or select immunologically resistant variant (immune editing) is gaining general acceptance by immunologists, in terms of an adaptive immune response to cancer, however much of the research has focused on the response of t helper cell by increase its receptors but it didn't win because it make the t helper cell damage the organs of the body, I work on the type 2 of immune response is called by cellular immune response on increase the cytokines by that produced by T cytotoxic cell that responsible for attack cancer cells by Vaccine in black seed, I made experiment on T cytotoxic cell by use the black seed oil and galanga oil.		
EG-21	AUTHOR(S)	Loaii abdalslam dahy / Micheal amgad Yousef / Ahmed badr shaker
ORGANIZATION	Go Team	
TITLE OF INVENTION	Cancer treatment by artificial intelligence (proliferating robot)	
Robot Robex is a robot programmed with artificial intelligence to reproduce itself and program its children to be equally intelligent. Rubex's goal is to get rid of cancer forever and by self-propagating within the human body to be an army of its sons to fight this malignant disease and eradicate it, we are talking about millions of smart robots in small sizes friendly to the aid system, all its mission is to eliminate cancer forever.		
EG-22	AUTHOR(S)	Mohamed Khalaf Nassef Khalaf
ORGANIZATION	Egyptian maintenance company	
TITLE OF INVENTION	Flame Batteries	
In flame reactions free electrons produced, this project aims to attract these electrons using strong electric field path through electrical load. Second stage of electrons circulation is to reduce oxygen (produce Oxide O2-) which will be used as flame oxidizer. When Oxide burns extra electrons will be free in flame then electric field re-attract them again. Expected output from this project is 200,000 A when burning one mole of oxide per sec.		
EG-23	AUTHOR(S)	Mahmoud Mohamed Abdelaal Ali
ORGANIZATION	Ismailia / Egypt	
TITLE OF INVENTION	Umbrella Air-Conditioner	
An air conditioner that walks over the person while walking in the streets and provides air conditioning in the winter and protects from the severity of cold and controlled the body flying over the person through the application of the mobile the idea of the existence of the cover over a person depends on the completely covered and fitted with a glass reflector of sunlight and thus can vision while walking and solar air-conditioned a quad copter design works wirelessly any help a person in a remote control air-conditioned and also depend on the existence of cooling device conditioned connected to the fans and the presence of slots in all air-conditioned solar air is received conditioner on the person directly and presence sensor convergence is placed in air-conditioned solar and work control when the conduct of the person solar air-conditioned going above it perfectly with a slight difference between the expense of the person's head.		
EG-24	AUTHOR(S)	Doaa Osama Younis El-Araby / Shrouk Shaaban
ORGANIZATION	Menofia STEM School	
TITLE OF INVENTION	TEI “The End of Insulin”	
We all knew that there are common types of diabetes that they are (T1D), (T2D), Gestational diabetes, inherited diabetes and so on. T1D happens when immune system attack beta cells and make it can't able to produce insulin. Also we knew that the patient of type one takes insulin all his life and shouldn't stop for it but other types can be treated and taken medicines that activate beta cells so in this case we worked on the type 1 cause as we said before that there are humans can't keep up for using insulin although it's percent was about 5% to 10% so we worked to activate and duplicate beta cells, our project is to mix between Hormone Beta trophin with incretin hormone for the manufacture of compound incrediabeta and injected intravenously directly to pancreas, so this can work for increasing the number of beta cells and the treatment of the beta cells dead and activate beta cells, so can be taken more than 5 years ago.		
EG-25	AUTHOR(S)	Hanin Hossam Eldaly / Sama Mahmoud Hadhoud
ORGANIZATION	Menofia STEM School	
TITLE OF INVENTION	Complete system for car protection.	
About 1.3 million people die in road crashes every year. Indeed, human errors present 49% of these accidents, so we made car with extra safety features. We control the maximum speed that the car can reach depending on the speed limits of the street. We also made a communication device between cars - automatic system between cars to share information that can help avoiding accidents-. We made an automatic steering wheel that work when a sudden car appears or stop suddenly, this by determining the best way to go. We also made a floating system to save the car.		
EG-26	AUTHOR(S)	Moustafa Mahmoud Moustafa Sabra / Mohamed Hesham Saad Abu Seif
ORGANIZATION	STEM High school for boys, 6th of October	
TITLE OF INVENTION	Increasing The efficiency of the Tesla Turbine to Supply a Sustainable Amount of energy for Personal Usage	
Our objective is to work on increasing the efficiency of a distinct type of turbine called the Tesla to harvest energy in the automobile exhausts.		

EG-27	AUTHOR(S)	Mohamed Maher Kotb Bayoumi / Ibrahim Youssef Mohamed Youssef Shalaby / Abdrahman Kamal Saad AbdElGlel
ORGANIZATION	Ismailia STEM High School	
TITLE OF INVENTION	Bacterial Conversion of CO2 & Urine into Liquid Fuel "BACO2"	
The project's idea is built mainly on creating an industrial system that can exploit a genetically modified soil bacterium to consume carbon dioxide gas, captured from the atmosphere, and urine, brought from the sewage stations, to yield a final product of a net-zero carbon dioxide gas emitting liquid fuel, which can act as an efficient alternative for gasoline. In a few words, it is built on making use of wastes in a double beneficial way, where we get rid of them from the nature and use them as an input to have a source for green renewable energy.		

EG-28	AUTHOR(S)	Hassan Tarek Hassan / Mohammed Hesham
ORGANIZATION		The Red Sea STEM School
TITLE OF INVENTION		Rescue Signal
The main cause of death in accidents is delayed emergency response. Our device can be connected to the car-already installed-control system, it will ask for help instantly when an accident occurs. The device locates the car using the GPS module, sends its x-axis y-axis location.		

GERMANY

DE-01	AUTHOR(S)	Taiyeb Namdaran / Hamed Moradi / Mohammadrasoul Eivazi / Eiman Pourdad
ORGANIZATION	APM co.	
TITLE OF INVENTION	Bioelectric Charger Model with Body Temperature Sensor Function for Charging Electronic Devices	
This system is based on the advancement of green electronics in the design of electronic devices. Biological charger is activated with the body temperature of the sensor. Using a Biological design technique and CMOS transistor technology, we can design a charger with low noise and high output power. With the design of an active inductive circuit, it has the ability to design chips in mobile & tablets & laptops, and this will increase the efficiency of the proposed design. Biological charger with fast charge, body temperature activation,		

HONG KONG

HK-01	AUTHOR(S)	Summy, PUN Chi Sum
TITLE OF INVENTION	Smart Roller	
This versatile invention combines environment-friendliness, body development, and portability into a one-of-a-kind yet manageable-to-use roller. It is aimed at replacing the commuting method of the public (namely bicycles) after mass production and promotion to the public.		

HK-02	AUTHOR(S)	CHEUNG, Yiu Chung / LAI, Ho Chi Joseph
	ORGANIZATION	City University of Hong Kong
	TITLE OF INVENTION	ISFS Glasses (Intelligent Glasses for Parkinson's Disease Patients with Safety Feedback System)
The ISFS Glasses is a medical device for Parkinson's disease patients with freezing of gait. It applies AR technology to help in restoring normal gait of the patients. It is a simple but mighty ad-hoc equipment which can surely improve the quality of life of PD patients.		

HK-03	AUTHOR(S)	Lam Michelle Wing Yan
ORGANIZATION	City University of Hong Kong	
TITLE OF INVENTION	Navigation app steer-impaired --- “SeeMeHere”	
“SeeMeHere” is a navigation app which target visually-impaired, disabled and elderly people. Compared to Google Map, our app provides a more accurate user position combining GPS and WiFi ID. It can help users to reach their destination with audio guidance, in form of clock position and distance, as it gives a more accurate instruction than front-rear left-right direction. “SeeMeHere” supports with audio search for available bus routes and arrival times. It also alerts drivers that user is waiting and provides additional tourist information. The app detects any surrounding danger that cannot be sensed by the guide cane. Relative users can also access the exact location of the user, and contact emergency services.		

HK-4	AUTHOR(S)	LEUNG, Yiu Cheong / WANG, Yifei / KWOK, Yu Ho / PAN, Wending
ORGANIZATION	The University of Hong Kong	
TITLE OF INVENTION	A flexible paper-based AI-air battery	
The present invention relates to an innovative flexible AI-air battery which can be directly printed on paper using corresponding functional electrode inks. For the battery anode, either an AI foil pre-embedded inside the paper or an AI ink printed directly on the paper can be adopted. As for the cathode, an oxygen reduction ink is also developed for printing directly on the paper.		

HK-05	AUTHOR(S)	Chan Peter / Lam Wah Shing / Leung Chiu Yee / Mok Tsz Ling / Sze Tsz Ho
	ORGANIZATION	City University of Hong Kong
	TITLE OF INVENTION	Vasher – Women’s Genital Cleaning Device
Maintaining a healthy genital is crucial, whether it is for cleanliness or comfortable reason. Our invention is to provide an easy solution for women with low risk of allergic, to clean their delicate part and ease uncomfortable feeling anytime, even in outdoor area with unreachable water source. The device is especially useful for women during postpartum, on period, hot and sultry weather or overnight outdoor activity. It is manufactured with material that is environmental friendly and economical, allowing all women to have equal opportunity to use, and to promote and improve consciousness to personal hygiene in general.		

HK-06	AUTHOR(S)	Hui Sai Fai
ORGANIZATION	Forever Greenery Association Limited	
TITLE OF INVENTION	Sea Water Solar Power Floating System for Future Power Generation	
The present invention is to develop a power electronics techniques that enable the maximum power derived from a floating sea water solar panel system. The innovation of power units based on power electronic balancing that allows the solar panel power can be balanced even under partial shading. To increase further the power, the electronics voltage-against-current power tracking is also used. Additional safety from the active suspension that smooths out the wave power due to strong wind or typhoon and thermoelectric power generation adds extra energy output. The work is the first floating sea water solar power in whole Asia.		

HK-07	AUTHOR(S)	Tsang Yau / Lau Tsz Yan / Chan Ho Yan
ORGANIZATION	Shun Tak Fraternal Association Yung Yau College	
TITLE OF INVENTION	Smart Lift (Elevator)	
Taking Lift is very time-consuming in densely populated city like Hong Kong. Firstly, Smart Lift reduces users' time and electricity consumption by reducing unnecessary stops. We use FLIR lepton thermal imaging module to determine whether the lift is full. If it is full, the lift will not stop on any floors. Besides, we uses PIR Motion sensor to detect whether anyone is waiting outside the lift. If there is nobody waiting, it does not stop. Last but not least, we also develop an app to create a barrier-free environment for visually impaired to use lifts without Braille and any helps.		

HK-08	AUTHOR(S)	Yim Sin Mei / Lau Chiu Yeung / Lam Wing Sheung
ORGANIZATION	Shun Tak Fraternal Association Yung Yau College	
TITLE OF INVENTION	Smart Wheelchair	
Smart Wheelchair use muscle strength to control the wheelchair to move forward, to the right or left, or to stop. When we want to control our muscle, the nerves of our brain will transfer the information to our muscles and send the tiny current of EMG. Since people with impaired limbs need help from family or friends every time when they go outside or return home. Therefore, we made 'Smart Wheelchair' to solve this problem about inconvenience so that they do not need help from the others.		

HK-09	AUTHOR(S)	Wai Wai CHENG / Ka Chai CHEUNG / Xiaoci HE / Chun Hei LAI / Ruiwen SITU / Tsz Chiu LIU
ORGANIZATION	HKFEW Wong Cho Bau Secondary School	
TITLE OF INVENTION	Sleepwell Pillow	
Background: Sleep apnea, causing breathing to repeatedly stop and start, is a fatal sleep disorder. Sleeping supinely is more susceptible to apnea. Aim: Our pillow ensures lateral sleeping posture to avoid apnea. Structure: Our product has three parts, an Arduino board, the pillow with two air sacs with gas pressure sensors and two air pumps. Methodology: When the sleeping user switches from lateral to supine posture, the decrease in gas pressure difference between two air sacs will initiate the pump, which inflates one of the air sacs. The user head restores to a lateral posture.		

HK-10	AUTHOR(S)	Ms. CHIANG Ngai Ling
ORGANIZATION	Smart Mobility Company Limited	
TITLE OF INVENTION	Intelligent rescue boat with safety jet engine electric boat	
A special electric boat is developed especially for maritime rescue purpose. The boat is powered by safe jet engine instead of dangerous blade propeller. A special rescue net is designed with electric motor actuation to move/rescue patient. The boat is powered by electric motor with energy storage through wireless charger to ensure water proof. The smartest concept of the design is the use of special jet mechanism to provide different motion controls for the boat, actuated by a power electronic motor driver. The motion control of boat spin, steering, and all maneuver can be realised.		

HK-11	AUTHOR(S)	Ms. CHIANG Ngai Ling
ORGANIZATION	EMINENT BIO ENERGY & ENVIRONMENT LIMITED	
TITLE OF INVENTION	High power water wave power generation for installation on vessel and shore side	
Water wave energy power generation is an alternative energy power generation and the sea water cover a large surface on earth and therefore its power is now captured by the new invention. A smart moving part and joints are design to absorb the wave power with low cost of the power and machine design. The special mechanism allows the wave dynamic energy to be easily conducted to the moving part and then converted into electric energy by a specially made generator. A linear-to-rotation gear and a single/three/four arm joint units can move such wonderful power generation.		

HK-12	AUTHOR(S)	Mr. Ming-yan, KU / Dr. Ka-hing, WONG
ORGANIZATION	Beauty Asia Investment Ltd.	
TITLE OF INVENTION	The Next Generation Disposable Sanitary Napkins: Chemical-free, Safe and Eco-friendly	
At present, over 90% of disposable sanitary napkins is chemical-based, and non-biodegradable, causing serious health and environmental issues such as skin allergy, microbial infection and micro-plastics. By using different parts of "Shatin Yu"(a unique pomelo in southern China), our research team has revolutionarily developed a natural hygroscopic material (biodegradable) and antimicrobial agent with remarkable growth inhibition effect on <i>Staphylococcus aureus</i> (99%), <i>Escherichia coli</i> (99%), and <i>Candida Albicans</i> (97%). By integrating these two novel elements, we have successfully developed the next generation disposable sanitary napkin ("Feminine Angle PHD"), which is chemical-free, safe and eco-friendly.		

HK-13	AUTHOR(S)	LAM Wah Shing / LEUNG Chiu Yee / SZE Tsz Ho / MOK Tsz Ling / Peter Chan
	ORGANIZATION	City University of Hong Kong
	TITLE OF INVENTION	Transformable Wheelchair
An innovative wheelchair – transformable wheelchair has been built in this project to solve a real-life problem which is transferring from wheelchair to different places such as bed, sofa or even getting into a vehicle like taxi, private car that wheelchair user always faced. Transformable wheelchair has four functionalities: 1. Able to perform transferring function, 2. Able to perform lifting function, 3. Able to drive, and 4. Able to be folded. Different strategies and technologies has been adopted and invented to meet the functions. The 4 objectives were successfully achieved in the 2nd prototype.		
HK-14	AUTHOR(S)	LEUNG Chi Hin
	ORGANIZATION	The Education University of Hong Kong
	TITLE OF INVENTION	Innovative Grid Score for Electronic Orchestra (e-Orch)
This newly invented <i>e-Orch Grid Score</i> is specially for iPad GarageBand music playing for both solo and orchestral setting. It presents musical pitches and rhythm in simple boxes and signs that enables participants of diversified levels to read and play music right away without long hours of score reading training. e-Orch lowers the barrier of music making for students of diversified music background so that every student can oversee the texture of the music piece. There is also a performer note to indicate the software setting for each piece.		
HK-15	AUTHOR(S)	YU Chung Wah Clare / CHAN Fung Ying Dorothy / WONG Wai Lap Simpson
	ORGANIZATION	The Education University of Hong Kong
	TITLE OF INVENTION	Aerobic Exercise Teaching Manual for Children with Autism Spectrum Disorder (ASD)
A new set of game-based aerobic exercises is created to train physical fitness and mental health of kids with ASD kids. Including multidimensional training elements, the exercises are formulated in a manual which can cater the needs of kids with ASD. Research results indicate that the exercises improve kids' physical fitness, ability to follow instructions, concentration span, language and social skills. The manual is specially designed for kids with ASD according to their respective characteristics, abilities and needs. It is divided into 2 parts: kindergarten and primary school levels.		
HK-16	AUTHOR(S)	Ernest Ho Sing CHAN / Yun Wa WONG / Gary Yu Hin LAM
	ORGANIZATION	AESIR Limited (Hong Kong)
	TITLE OF INVENTION	AR Playbook
A newly invented playbook built on AR technology to help improve emotional literacy of children with disabilities. The playbook caters the needs of speech and psychotherapy clinics, special schools with students with special education needs (SEN), and parents. The full package includes a colourful publication, a mobile app and a backend data collection mechanism. Through this AR playbook, SEN children will learn about concepts in positive psychology and practice how these could be applied in life. At the same time, the children can record the occurrence of incidents that made them happy with the mobile app on a daily basis.		
HK-17	AUTHOR(S)	LEUNG Chiu Yee / LAM Wah Shing / CHAN Peter / SZE Tsz Ho / MOK Tsz Ling
	ORGANIZATION	The City University of Hong Kong
	TITLE OF INVENTION	Twind Turbine
Twind is a hybrid vertical axis wind turbine which could be applied in railway and highway tunnels or compacted urban areas like Hong Kong. When there is a train passing through the tunnel, the energy in turbulent wind could be utilised for electricity generation. Turbines are interconnected and formed a strong power supply network. Its special design and system configuration allows the Twind system to have optimal performance with minimum impact on train operation, which ensures passenger or user's safety. 'Zero Energy Tunnel' could be achieved with Twind system, by supporting energy demanding systems in tunnels like lighting and ventilation.		
HK-18	AUTHOR(S)	Yau-yuen YEUNG
	ORGANIZATION	The Education University of Hong Kong
	TITLE OF INVENTION	An innovative method for easy and rapid development of online experiments to facilitate effective STEM education
Online (or remote-controlled) experiments are recently emerging as another important exemplar of technology-enhanced learning. For this invention, an innovative method was formulated with successful pilot tests to apply low-cost and open-source hardware and software for rapidly and easily developing online experiments which are embedded with effective pedagogies for facilitating teachers' and students' effective teaching and learning of STEM subjects. Through the Internet, students can readily set and control the Arduino-based platform for conducting or observing authentic experiments in any computing or mobile devices at anytime and anywhere by using a web browser without installing any bulky or proprietary plugins.		
HK-19	AUTHOR(S)	HO Wing Kei
	ORGANIZATION	The Education University of Hong Kong
	TITLE OF INVENTION	Novel Air Purifiers Using New Graphite Carbon Nitride Photocatalyst Material
A new sustainable photocatalytic material, which only consists of carbon and nitrogen and consumes no power, is develop to provide an innovative solution for long-term air purification and disinfection functions in the indoor environment. Solely indoor lighting (i.e. visible light) condition can activate the material to degrade pollutant and bacteria. The material is ready-to-use in surface coating manufacturing that new indoor air purifiers can be in forms of flooring, ceiling and interior wall to provide prolong anti-bacterial and air-cleaning function.		

INDIA

IN-01	AUTHOR(S)	AMIT KUMAR / AKASH KUMAR / SUPREETH Y S
	ORGANIZATION	IES COLLEGE OF TECHNOLOGY, BHOPAL/ R V ENGINEERING COLLEGE BANGALORE
	TITLE OF INVENTION	SEVA
SEVA- Services in emergency via application is a mobile-based application which is used to tackle long queues and unnecessary delays providing in medical sector. It has a unique shortcut key which is used to reduce time during emergencies and provide the best possible solutions to victims.		

IN-02	AUTHOR(S)	Muhammed Janish U
ORGANIZATION	M E S College of Engineering kuttippuram	
TITLE OF INVENTION	TWO MODE PNEUMATIC DAMPING PROSTHETIC LEG FOR ABOVE KNEE AMPUTEES	
In India, there are large number of amputees, either amputated due to an accident or a disease. A good number of these are above knee amputees. Even though many prosthetic limbs are available in the market, a cost-effective prosthetic leg with good functionality is not available. Cheap prosthetic legs like Jaipur foot provide only support and a feedback based prosthetic legs costs around 70000 dollars and the chances of affording a high cost limp seems low. Our invention is a feedback based prosthetic leg in the reach of common man.		

IN-03	AUTHOR(S)	Chandra ShekharSharma / Shital Yadav / Illa Mani Pujitha / Tulika Rastogi
ORGANIZATION	Creative & Advanced Research Based On Nanomaterials (CARBON) Laboratory	
TITLE OF INVENTION	Electrospun Nanofibers based Sanitary Napkins	
Use of SAPs and other harmful chemicals have adverse health as well as environmental effects. To replace the micron fibers with nanofibers in absorbent core to exploit the potential of nanofibers due to their large surface area and porosity. A biodegradable polymer is then converted into nanofibers using Electrospinning process and used as an absorbent core (CA). Results in terms of absorbency, residue, comfort and mechanical properties were compared with various commercial products (S1-S6) available in the market and used for different menstrual flow conditions.		

IN-04	AUTHOR(S)	M/s. RestyroTechnologies Pvt.Ltd.
TITLE OF INVENTION		
Direct Recycling of Polystyrene Waste		
Best of fabric at the cost of waste. Asia contribution: 50%. Polystyrene waste + Orange peel waste = Recycled polystyrene fabric – Overview of recycled polystyrene fabric. Current Status: Proof of concept available, Patent has been filed, and Developing Pilot scale machine.		

INDONESIA

ID-01	AUTHOR(S)	Haidar Azzamuddin / Arifah Ramadhani Azzah / Fathor Rahman
ORGANIZATION	MAN 2 Kota Malang	
TITLE OF INVENTION	Jamu Pepaya Jantan as a Novel Medicine for Malaria High Stadium	
The massive cultivation of the female papaya (<i>Carica papaya</i> L.) due to its diverse benefit especially in curing malaria disease, has been progressively made the male one racing extinction. By this project, Jamu male papaya consist of mixture the leaves and flowers is scientifically proven have more powerful effect to heal malaria disease. It showed the best result on all parameters such as Propidium Iodide, Macrophages, NK, Treg-Cells, B-Cells, IgG, TNF- α ,IFN- γ , IL-10, and hepatocyte, compared to the female plant, even on the high stadium of malaria. For commercializing, the Jamu was freeze-dried to endure its antioxidant and active compound.		

IRAN

IR-01	AUTHOR(S)	Amir Hossein Ebrahimi Kheimesari
ORGANIZATION	University of Guilan	
TITLE OF INVENTION	producing nano cellulose crystalline as a super material from cellulose pulp of Azolla and agricultural wastes	
This invention is about the production of paper and paper pulp as well as cellulose and textile industry. Azolla plant is used for the production pulp, which can be used in the production pf paper, cardboard, napkins and envelope in papermaking industry and production of different type of plastic, cellulose containers and products including biodegradable disposable containers and different cellulosic layers and other products of textile industry.		

IR-02	AUTHOR(S)	Dr. Sayedali Mousavi / Dr. Vida Kargar Dehnavi
TITLE OF INVENTION		
Automatic additive multi stage portable three dimensional device for manufacturing of hard and soft organs		
This novel bio printer uses different state of art technology such as bio ink with stem cell injection, biocompatible polymer and nano composite, electrospinning laser and plasma surface modification together to solve ordinary bio printer problems and clone hard and soft tissue and organ simultaneously incubator chamber.		

IR-03	AUTHOR(S)	ZHARF SEPANTA IDEAL ARIANA" WINDMAX"
TITLE OF INVENTION		
"Windmax" Vertical Axis Wind Turbine		
New enhanced leading wind turbine known as "Twisted Savonius" resulted efficiency rising from 17% to 23% with exclusive AC to AC circuit and 12-phase brushless generator designed by Windmax. Accompanied by new composite materials produced specifically in order to reach less weight and redesign of inner structure of blades.		

IR-04	AUTHOR(S)	Dr. Elham Romoozi / Dr. Mehrdad Fojlaly / Reza Nasrollahi Nargesabad
	ORGANIZATION	Nikan Oral and Maxillofacial Radiology Center
	TITLE OF INVENTION	The tooth anesthetic device by radio waves
This device works by short-wave radio. The device has two probes capable of connecting to a factor that, by releasing the radio strands, prevents pain in the brain by the neural channels. Dentists can use this device for numbness instead of injecting anesthetic chemicals for tooth operation. Advantages of this device: 1- Non-use of chemicals 2- The harmlessness of radio waves due to their low power 3- No need for consumables 4- Low maintenance fee 5- Sanitary 6- High application for children, for fear of injection.		
IR-05	AUTHOR(S)	Chavoush Azizikoutenaei / Bamshad Azizikoutenaei
	TITLE OF INVENTION	Smart Robot for Geotechnical Procedure
Today, we are living in a connected world. It was not possible to achieve this level of connectivity without sensors, communication tools, computers and internet. But some heavy-duty tasks like excavation and digging are not being covered by these modern technologies and smart tools. In this design, we built a robot for geo-technical procedures that can perform heavy-duty and dangerous tasks in a faster, more efficient and accurate way. To achieve our goal, we have used inertial sensors, cameras, and robotic arms to perform all the procedure in an automatic manner. We also developed software with our hardware modules to schedule, control and monitor all the tasks in the overall system. All data will be gathered in our control unit and real time processed by machine learning algorithm. As a result, the excavation and geotechnical procedures need less time, cost and will be performed in a more efficient & accurate way.		
IR-06	AUTHOR(S)	Leila Keshavarzi / Hamed Bahadori
	TITLE OF INVENTION	Smart Cart
Have you ever been in the grocery store and had problems finding things? Well, with the smart cart you will not have that problem. The LCD screen provides you with the information to find the products in the store or get more information on them with the built-in RFID reader and barcode scanner.		
IR-07	AUTHOR(S)	Seyed Mostafa Hosseini Tabatabaei
	TITLE OF INVENTION	Air purifier tower
In nowadays world, the existence industrial machinery and factories caused the environmental pollutions. This invention can clean the existing ting dust and pollutions with the lowest possible cost.		
IR-08	AUTHOR(S)	Mohammadamin Mirkohi
	TITLE OF INVENTION	Vehicle tire and rim with the ability of adapting the size and dimensions of the tire tread to increase adhesion to the surface
This invention has many advantages such as: No further need to any type of wheel chains or ice breaker tires which makes the driver and passengers more comfortable. No more damage at front suspension of the car. No need to change winter tires with regular tires before and after winter. No more asphalt and environment damages. Useful for all seasons and all counties especially cold countries and cold climate.		
IR-09	AUTHOR(S)	Sepehr Talebi / Dr.Hojjat Rahmani / Dr. Somayeh Niakan / Behnam Amini
	ORGANIZATION	Shahid Beheshti University of Medical Sciences
	TITLE OF INVENTION	Dental instruments to prevent non-standard cutting in the process of coating, implants and restorations
Preservation of tooth structure in some cases may require that limited amounts of sound tooth structure be removed to prevent subsequent uncontrolled loss of larger quantities of tooth structure. This is the rationale for the removal of 1.5 mm of occlusal tooth structure when preparing a tooth for a mesio-occluso distal (MOD) onlay. The metal on the occlusal surface can protect against dramatic failures, such as fracture of tooth structure, as well as the less obvious failures that may be caused by the flexure of tooth structure. The purpose of this device is to create a tool for dentists to use dental turbines with a suitable angle to maximize the amount of retention and resistance.		
IR-10	AUTHOR(S)	Dr. Seyed Salam Rahimi / Arezou Maleki
	ORGANIZATION	Urmia University of Medical Sciences
	TITLE OF INVENTION	Smart ergonomic dress for dentists to alert inappropriate positions during work to reduce the incidence of joint pain of surgeons and dentists
Today there are many jobs in which people are forced to stay in bad conditions for long hours, including medical care such as a surgeon, a dentists, for example, a surgeon during surgery may have to stand up for hours and bend down to the bottom. And it can take a hunch, without having to notice its own condition, because the surgeon's usual thoughts and minds are only at work at this time. By wearing this smart outfit, the other is not worried about his inappropriate position, because if you have more The normal range is in poor condition. The sensors are current and alert, as a result, the person quickly poo He modifies his condition and maintains his health and prevents the development of many musculoskeletal disorders.		
IR-11	AUTHOR(S)	Farid Kiani Haft Lang
	TITLE OF INVENTION	Optimization of the cooling system of heavy magnetic coils
This invention use in big magnetic coils for controlling and reducing temperature and will make coils cool, it can make safe coils from increasing temperature that it's one of main problems for destroyer them.		

IR-12	AUTHOR(S)	Babak Asadi / Niloofar Nikraves / Saeed Sahraee
TITLE OF INVENTION		
A drive to make a hole in concrete and none concrete component as well as electronic hammers		
To rawlplug in different component, the following tools are necessary. 1. A drill to make a hole, 2. A hammer to place a rawlplug, and 3. A screw drivers to screw a rawlplug in. Final stage which takes four to 10 minutes. The designed device carries out 3 stage process without any other tools with least expense and in the least time.		
IR-13	AUTHOR(S)	Seyed Ali Montazeri / Pegah Rafei Dehkordi / Salman Sangi / Mohadeseh Bakhtiariazad
TITLE OF INVENTION		
Prefabricated cold formed steel structure without straps or shear walls by using state-of-the-art base isolation system and new cellular concrete filled column		
The proposed system is based on the state of the art most advanced technologies known in structural and seismic engineering science and yet benefits from simplicity, inexpensiveness and high ability to be commercialized. In this system, all steel components are made of thin steel sheets (up to 3 mm). U shape cross sections are used for beams and box sections for columns. To compensate for column weakness under compressive loads due to buckling, columns are filled with concrete of 1500kg per cubic meter density and 250 kg/(cm)2 compressive strength and also bolted connections are used. A very small single footing is placed under each column and the space between column and footing is filled with a particular type of seismic isolator that damps the sustained energy from earthquake or wind and prevents it from being transferred to the main structure. All members of the structure are fabricated using a very small and inexpensive (\$75000 max) plant in factory. The steel used in the structure of such buildings has a unit weight of 15 kg/m2, which is much lower than what used in conventional steel structural systems or even rebar used in concrete structures. This system is moment resisting in both main directions and no other lateral load resisting systems are required and could be constructed in two stories with a maximum of 10m height. This system is totally earthquake/wind resistant and meets all the American building regulations in practice. It can be fabricated very fast without the need to land leveling and preparation.		
IR-14	AUTHOR(S)	Esmael Sayyari
TITLE OF INVENTION		
Sealer nozzle for vehicle hull		
Sealing means applying a coating of sealant to different parts of an automobile to make them impervious. In this phase of production, entire seams under, over and inside the automobile is sealed using sealer. This product is mostly used to seal hull parts, doors, chassis, trunk, front hood and auto hull floor and its main application include preventing moisture penetration, cabin noise and dust particles while strengthening the automobile hull and increasing the normal lifespan of parts. The nozzle is completely manual and does not required installation of robot arms or other machinery at the production line and it is applicable for all cars.		
IR-15	AUTHOR(S)	Amir Ahkami
TITLE OF INVENTION		
Cutting and canal digging machine on asphalt, concrete and soil surfaces		
In this machine, the offloading and loading of soil and debris inside the canal is dual mode: 1) with funnel, from the side, and 2) without funnel from the front. It is generally functional. Having low weigh, high speed in canal digging, low wear and corrosion of the blade (because of excellent setting of holder and blade nails), appropriate depth and width, saving asphalt and concrete primary components for filling canal, are the other benefits of this machine. Also, replacing the blade is quite easy and is done individually. The machine's lower lid is for the time when loading soil and debris is not necessary. It is capable of being designed and installed on a variety of right machinery.		
IR-16	AUTHOR(S)	Alireza Khadem Hosseini Ghasemi
TITLE OF INVENTION		
Intelligent helmets for mines		
Disclosed is a helmet for mining. The helmet includes: a breastplate; a shell integrated with the breastplate; and a transparent face shield that abuts the breastplate and shell. The shell surrounds a portion of a wearer's head and comprises forward directed light emitting elements, whereas the transparent face shield surrounds the remaining portion of the wearer's head. Also disclosed is a personal protection system that includes the helmet and ear protection for limiting the amount of ambient noise that the wearer hears.		
IR-17	AUTHOR(S)	Soheila Roshani Takhtameshlou
TITLE OF INVENTION		
Smart heavy-car switch using RFID technology		
This system by using RFID technology in the process of raising car safety and also the drivers comfort, gives the car making companies the possibility to add new options, including the ability to turn on and off the car, lock and unlock the car door and also make the electronic process of the car smart by using microchip and card.		
IR-18	AUTHOR(S)	En. Ali Salehi
ORGANIZATION		
Artiman Rah Arg Co.		
TITLE OF INVENTION		
Design & Manufacturing Machine for Altering Façade Color of Building and High-rises		
Building and construction have always had maintained a fixed color on their façade. Buildings have never changed their face color since their construction. We always see buildings in the color chosen by their builders from their finishing time leading to depression of the society and boringness of the urban vista. Our invention makes it possible to alter the facade color of the building equipped with the coloring machine on different occasions in as short as 4 minutes only. It enables us to use the color of our preference to contribute to beautification of the city environment when we intend to: Wearing cheerful color for New Year and another colors suitable for other celebrations. The goal: 1-Beautification of city environment 2-Creating a more dynamic society with different colors 3-Eliminating depression brought by fixed color of buildings 4-Reducing the buildings' weight.		

IR-19	AUTHOR(S)	Ali Farhang
TITLE OF INVENTION	Portable printer with rolled paper technology	
In this invention the paper source is made with rolled technology, which is the main reason for shrinking the printer size. In the first step, the image is scanned either with the smartphone or used from the saved photos. After the device receives a photo, the laser starts its irradiation and passes through the mirror to the photosensitive drum and finally the machine printout the whole image or text.		

IR-20	AUTHOR(S)	Mobina Vatankhah
ORGANIZATION	FARZANEGAN Exceptional Talented School	
TITLE OF INVENTION	Detecting device and transmitter of gas flow cut-off or decrease	
The device works by curved propeller is installed into the pipe. Water flow causes the movement the propeller and by the power of bushing and gaskets will be installed on the pipe. The device transfers data as graphs to computer. It regulates the device dependent on temperature and different flow during the first two weeks on installation. On condition that the reduction of temperature and occurrence, a report is sent to its respective organization via sim (modem), if the condition is not corrected up to 24 hours, it reports to the organization and block the water flow.		

IR-21	AUTHOR(S)	Farshid Bazmi / Negin Loghmani / Afsaneh Khaghaniazar
TITLE OF INVENTION	New improvement method of speed and accuracy at logic and condition monitoring system of helicopter turbo shaft engines	
Following a dramatic increase in the use of helicopters and increase in turboshafts to the global market, it is necessary for these helicopters to be tested in order to ensure their engines are in good working order. Since the engine is its palpitating heart of every aircraft system, the software utilises a thermodynamic model to assist a helicopter's engine in stabilise and standby conditions. With the assistance of this software, it is possible to predict the effects of engine defects on the measured performance of the aircraft. A two-step process has been designed to determine the maximum output power of a real turboshaft engine without requiring a motor operating at maximum power. As a complete acquisition and control system allowing you to run complete automatic test sequences, controlling your dynamo-meter, your engine, your ancillaries - while controlling all the safety parameters of your installation - and automatically producing test reports in any format, with a single interface.		

IR-22	AUTHOR(S)	Farhad Bazmi / Nematollah Mardanian / Javad Aghaeiata / Sheida Sotoudehpourman
ORGANIZATION	BNP Company	
TITLE OF INVENTION	Upgrade Vehicle Safety with an Intelligent Fuel Back System in an Emergency Condition	
One of the most dangerous incidents that could occur in the event of an accident, and subsequently could be life-threatening, is the car's fire due to fuel leakage due to damage to the fuel system. Therefore, in order to overcome this problem, a high-pressure capsule containing anti-fire materials that cannot be combined with gasoline can be used. Activating this system must be synchronized with the operation of the airbags, so that when the airbags are opened, the injectors are automatically switched off and at the same time a signal is sent to the milk of this capsule, which injects the material inside it into the rail It burns fuel and returns fuel to the tank in orbit. As a result, the entire circuit will be empty of fuel and no further fuel will be leaked or fired, and the other side of the circuit is filled with anti-fire materials. In this way, the occupants' safety factor is much higher.		

IRAQ

IQ-01	AUTHOR(S)	Prof. Dr. Ihsan Edan Abdulkareem Alsaimary / Dr. Falah Maarouf Mutlak / Dr. Adil Edan Abdulkareem Alsaimary / Dr. Bassam Yassien Kudhier / Dr. Zahraa Kadhum / Dr. Khalid Almosaed / Dr. Sundis s.bakr / Dr. Najah Abbod
ORGANIZATION		UNIVERSITY OF BASRAH
TITLE OF INVENTION		A novel biological agents extracted from Iraqi aquatic plants for treating burn & post-operative wound infections
Altered and developed many chemical methods for the purpose of extracting Mwadrat effective against bacterial namely, (water extracts, extracts alcoholic, total protein extracts, total alkaloids extracts) from a number of Iraqi aquatic plants - which uses some in some medical treatments in folk and traditional - medicine which plants Saad Cyperus longous L. and Alsavenia Salvinia natans L. and Albotamojetun Potamogeton pectinatus L. and Alkhuysh Vallisneria spiralis L. wild Albrbin Bacopa monniera L. and Achammblan Ceratophyllum demersum L. collected from the river Karma coastal area and the Shatt al-Arab, against pathogenic microbial species and facilities For typhoid post-surgical wounds which is considered a serious health problem due to delayed healing.		

IQ-02	AUTHOR(S)	PROF. DR. IHSAN EDAN ABDULKAREEM ALSAIMARY / PROF. DR. JASSIM M. ALDHIAB / MR. JASSIM M.ABD ALI / PROF. DR. SUNDIS S.BAKR
ORGANIZATION	UNIVERSITY OF BASRAH	
TITLE OF INVENTION	SYNTHESIS OF A NEW international MOUNTING AGENTS	
SYNTHESIS AND recovery of a new internationally mounting agents for preparation and preservation of histopathological and microbiological slides Five new mounting agents were recovered and named BASMED 1 ,BASMED 2 ,BASMED 3 ,BASMED 4 ,BASMED 5. The load efficiency of these five circles was compared with the commonly used industrial loading media - Canada balsam, DPX and Hardner - and studied its important and formative properties after a long period of time (more than 100 days) by the specialist in this field. Distinct and similar to the efficiency of loading the industrial media while others have shown relatively good efficiency can be adopted in the future to overcome their disadvantages.		

IQ-03	AUTHOR(S)	PROF.DR.IHSAN EDAN ABDULKAREEM ALSAIMARY
ORGANIZATION	UNIVERSITY OF BASRAH	
TITLE OF INVENTION	A NEW international Techniques for treating hydatid disease	
In this invention anew technique used for radiotherapy of hydatidosis by gamma radiation diing between 2 to 20 Gray by fractional discontious dose and local irradiation directly to hydatid cust this technique was found successful to treating human hydatidosis.		

IQ-04	AUTHOR(S)	PROF.DR.IHSAN EDAN ABDULKAREEM ALSAIMARY
ORGANIZATION	UNIVERSITY OF BASRAH	
TITLE OF INVENTION	NEW INTERNATIONALLY ANTIMICROBIAL AGENTS: Synthesis, creation and evaluation of antibacterial, antiparasitic and antitumour activity of some pyrimidine nucleosides as antitumor and antimicrobial agents	
Antibiotics resistant bacteria were the big problem for most of chemotherapy strategies, so the new antibiotic with high efficiency was present necessary. We create a new antibacterial and antitumour agent. We used a cheapest technique to synthesis new pyrimidine nucleoside that has effective antibacterial and antitumor activity. Currently we made commercial antibiotic as a cream and or injection.		

IQ-05	AUTHOR(S)	PROF.DR.IHSAN EDAN ABDULKAREEM ALSAIMARY
ORGANIZATION	UNIVERSITY OF BASRAH	
TITLE OF INVENTION	Recovery , extraction and characterization of Staphylococcus aureus superantigens (Staphylogen) as a cause and vaccine for Atopic Dermatitis/ Eczema Syndrome In Human	
<p>*A new technique of five steps were used to isolate, purify, identify and characterize the Staph .aureus exotoxin (staphylogen / or staphylogenic protein as a superantigen), where its purity and molecular weight were evaluated by using Polyacrylamide gel electrophoresis (PAGE 7.5%). *- A high purified single band protein of Staph .aureus exotoxin has a molecular weight of 9 47.315) Kd , and eight purified bands of all Staph.aureus antigens have a molecular weight ranged from (13.567 – 549.540)Kd.*- In vivo results succeeded to induce eczematous - like lesions on mice (BALB/C) skin after its experimental infection with staphylogen, all bacterial antigens and two doses of viable cells and OMPs of Staph.aureus ,by using a various infection methods : intradermal , spot and prick technique of injection .b- Typical well known histopathological changes of eczematous lesions of AD patients were seen in our study and the same histopathological features were shown in histological examination of slices from eczematous like lesions of mice skin.</p>		

IQ-06	AUTHOR(S)	Alaa Hussein Shawqi
ORGANIZATION		AL AMAAN AL MUTAHIDA Co.
TITLE OF INVENTION		Smart Security Checkpoint By Artificial intelligence
This is a solution to protect the people from the possible terrorist attacks. Leading the way in intelligent optical inspection and recognition solutions to secure borders, identify threats, and provide real-time actionable intelligence. Providing all-in-one solution platform in 1 device.		

IQ-07	AUTHOR(S)	Abdulrahman Nabeel Younus
ORGANIZATION	Iraqi Inventors and Innovators Society / University of Mosul	
TITLE OF INVENTION	Conversion System of Vehicles to Hybrid	
This system that can be added to a wide range of used or currently exists vehicles and make them environmental friendly also saving fuel thus reducing carbon dioxide emissions without a need for manufacturing new vehicles. It's especially an electrical motor, it's a unique permanent magnet DC motor act perfectly as a motor and generator synchronously, and it completely has no rotational resistance of magnetic field as a new idea.		

IQ-08	AUTHOR(S)	Abdulrahman Nabeel Younus
ORGANIZATION	Iraqi Inventors and Innovators Society / University of Mosul	
TITLE OF INVENTION	Stability Control System for Vehicles by using the Gyroscopic Power	
A new type of Stability Control System for Vehicles by using the Gyroscopic Power. This new idea is by exploiting a dangerous and wasted mechanical power that producing through turns and use it to maintain the level of the vehicle's body without using hydraulic pumps or pneumatic systems. This System is perfectly sporty and perfectly comfy without using any power from the engine.		

IQ-09	AUTHOR(S)	Anas Jalal Abdulkarim / Abdulrahman Nabeel Younus
ORGANIZATION	Iraqi Inventors and Innovators Society / Northern Technical University / University of Mosul	
TITLE OF INVENTION	Smart and Active Cart	
It's a smart cart able to maintain its level through its moving on a bumpy road by smartly absorb the bumps and vibrations and deal with the sloping roads. This cart can be used to transport sensitive luggage in the airports or chemical materials in the factories and can be used as a patient transfer bed in the hospitals.		

IQ-10	AUTHOR(S)	DR. HUSAM ABDULRASOOL HASAN, PROF. K. SOPIAN
ORGANIZATION	AL-ESRA'A UNIVERCITY COLLEGE, National University of Malaysia UKM	
TITLE OF INVENTION	HYBRID SOLAR POWER/THERMAL SYSTEM	
The hybrid solar power system broadly comprises a photovoltaic (PV) system and solar thermal absorber which is configured to produce both electricity and heat from one integrated component or a standalone system. In an aspect of the present invention, the photovoltaic system is used as a part of thermal absorber. The invention is related to a hybrid solar power system that is a combination of photovoltaic (PV) and solar thermal system and configured to produce both electricity and hot water from one integrated system. The water jet to the back side of PV module. The hot water collect and stored in the storage tank to use in different application.		

IQ-11	AUTHOR(S)	DR. HUSAM ABDULRASOOL HASAN, PROF. K. SOPIAN
ORGANIZATION	AL-ESRA'A UNIVERCITY COLLEGE	
TITLE OF INVENTION	SOLAR THERMAL COLLECTORS WITH DIFFERENT ABSORBER PLATES	
This new and innovative high efficiency solar water heater system has been used for convert solar energy to thermal energy and produce hot water. The solar thermal collector type with jet impingement and fins has high thermal efficiency because of the high heat transfer coefficient between absorber and fluid flow. Remove the heat with high thermal efficiency by using heat transfer enhancement techniques which is jet impingement.		
IQ-12	AUTHOR(S)	DR. HUSAM ABDULRASOOL HASAN, PROF. K. SOPIAN
ORGANIZATION	AL-ESRA'A UNIVERCITY COLLEGE, National University of Malaysia UKM	
TITLE OF INVENTION	HIGH CONCENTRATION PHOTOVOLTAIC / THERMAL SOLAR COLLECTOR	
The present invention relates to high concentration photovoltaic/ thermal solar collector. More particularly, it is related to combination of photovoltaic (PV) and solar thermal absorber. The one integrated component or system configured to produce both electricity and hot water.		
IQ-13	AUTHOR(S)	Muayad Ahmed Abbas
ORGANIZATION	Iraqi Inventors and Innovators Society	
TITLE OF INVENTION	Industrial model of an electrical relay	
The industrial model of the relay depends on a series of connected connections in a new way that enables us, when used, to obtain high power of the same volt. The model is experimented with a lot of cars and has great success and a high ability to solve all the problems caused by mechanical disabilities that lead to the need to provide greater ability to bypass the power of disability. The primacy of the model is simplicity and small to use.		
IQ-14	AUTHOR(S)	MUTHANNA KADHIM SALMAN
ORGANIZATION	Iraqi Inventors and Innovators Society	
TITLE OF INVENTION	Fat Dring	
Tool to separate fat from the flesh (meat) using centrifugal technic and drying potato and helping to refreshing frozen meat helping people to lose Weight. There is no side effect or reduction of nutritional value only reduces the fat content of cooked meat. I have done some tests and the product is currently reproducible as an industrial model.		
IQ-15	AUTHOR(S)	ZIADOON KHALAF KURAIMID
ORGANIZATION	Ministry of Oil / PRDC, Petroleum Research and Development Center	
TITLE OF INVENTION	Synthesis of an economic chemical that is effective in increasing the octane number of gasoline product without affecting the other product specifications	
The Dimeric compound is composed of two water-resistant arms that are more lipophilic than ammonia, from existing chemical materials and mixed with a type of Fatty Alcohol. (And in the preparation of the origin of the first compound) and at a very acceptable concentration did not exceed (150mg / l) to achieve a high octane degree of gasoline product ranges from (3.5-6) degrees, without affecting the characteristics of the product of gasoline, other gasoline represented by RVP and Boiling Point and Ash Content and maintain those specifications within the standard adopted in all refineries of Iraq. Also tested the product in the efficiency of combustion Fuel in a car with four-wheel drive and the results were excellent.		
IQ-16	AUTHOR(S)	Sura A. Abdulsattar
ORGANIZATION	Al-Mustansiriyah University / College of Science	
TITLE OF INVENTION	Diagnosis of breast tumors using a biochemical parameter by simple technique	
Serum amyloid A (SAA) have been identified as a potentially useful as a non-invasive biomarker for prognosis of human tumors such as breast cancer. The aim of this study is to measure SAA level in breast tumors patients, and evaluated its clinical significance and potential utility as a serum biomarker for the early diagnosis of breast cancer. Also to evaluate the associations between SAA and other parameters including some inflammatory proteins and finally study the possibility of using agarose gel electrophoresis as a tool for SAA diagnosis. A total of 77 patient women (ages 28–71 years), attending center of Breast Cancer, and 33 healthy individual as a control with age (23-65 year) were included in this study. Biochemical tests including, SAA, CRP, were detected by using Enzyme Linked Immuno Assay (ELISA) kits. Total proteins and Albumin were also determined for all subjects by Biuret method and Bromo Cresol Green respectively. Agarose gel electrophoresis analysis was also performed to detect presence of SAA in subject's sera. The results indicated presence a significant increase of BMI, SAA, CRP, globuline in sera of benign and malignant groups compared to that of control group while a significant decrease in albumin level was observed. The present study also revealed a significant association between SAA and BMI, age, CRP and albumin. Agarose gel electrophoresis analysis revealed presence three bands (A, B, C) which represent the SAA isoforms in serum patients. Our results suggest that amyloid A may be useful as a tumor marker whether it's benign or malignant, and it can be possible to adopt serum protein electrophoresis as laboratory technique for detection of SAA elevated and diagnosis presence of tumor.		
IQ-17	AUTHOR(S)	Fatin fadhel alkazazz
ORGANIZATION	Almustansiriyah University \Collage of science-Department of Chemistry	
TITLE OF INVENTION	Bio conjugated of Glycoprotein's Hormones with Nanoparticles of Ferro Magnate by Newly Bounder Azelaic Acid	
Due to expansion biomedical applications of the magnetic nanoparticles (MNPs) especially their magnetic field are not harmful to human ,so they should coated with a biocompatible shell that permits a good stability without aggregation ,therefore this work aimed to present a new safe bounder "azelaic acid" had not used previously then applied the glycoprotein molecules with them. At the beginning the MNPs was prepared by modified chemical method"co-precipitation" of the iron oxide (II and III) .And coated with azelaic acid using super saturation method. The coated MNP reacted with the hormones "LH, FSH, and TSH". The synthesized compounds before and after the coated were identified and characterized using many techniques including AFM, TEM, SEM, DLS, BET, zeta potential, FTIR, UV, fluoresces spectroscopy. From above, it can be concluded that a success coating MNPs by azelaic acid and the prepared coated MNPs can be used and loaded 2 with Bio-molecules (drug delivery), fixed some important proteins as glycoproteins hormones, modified ELISA kit.		

JORDAN

JO-01	AUTHOR(S)	Ayah Bani Mostafa / Ghada Haddad
ORGANIZATION		Jubilee school – Amman, Jordan
TITLE OF INVENTION		Leading the Environment with Less Heavy Metals
<p>The use of wide-distributed plant powder (<i>Melia azedarach</i>) for purification and treatment of heavy metals from industrial wastewater with different methods to make sure of the efficiency. A prototype containing two steps of filtration was designed to be used as a filter. The results showed a minimum of 92% removal of heavy metals and differed from one heavy metal to another. Moreover, there was a statistically moderate direct relationship between the time and the percentage removal. Also, there was a statistically direct relationship between the concentration of heavy metals and the percentage removal. We conclude that the <i>Melia azedarach</i> fruit was effective in removing heavy metals from wastewater and producing clean healthy water for different uses.</p>		

JO-02	AUTHOR(S)	Layan Audeh / Dania Jabasini
ORGANIZATION		Jubilee High School
TITLE OF INVENTION		Air Conditioning Bracelet
<p>This study aimed to decrease the effectiveness of Hyperhidrosis on hands by reducing the excessive sweating using a cooling method. The study methodology contained two phases. First, a bracelet was designed in a specific way in which it will be suitable to all conditions with on and off button. It contains a humidity sensor, Arduino device and a small fan. Second, this bracelet was designed to reduce the wetness of with a small fan accompanied with Arduino system. The bracelet will behave when the sensor measures the humidity which means when the wetness of hands increases than the normal percentage the fan will work.</p>		

KOREA

KR-01	AUTHOR(S)	Park Sang Pil
ORGANIZATION		Kyunghwa Girls' Middle School (teacher)
TITLE OF INVENTION		Gravity acceleration measuring device
<p>The invention is an experimental device to measure the acceleration of gravity and acceleration in a science class, making the class easier to understand through experiment. It measures the passage time with a sensor (Micro s/w) by dropping an object from top to bottom and calculates a value for acceleration of gravity.</p>		

KR-02	AUTHOR(S)	Park Ye Rim
ORGANIZATION		Kangnam University
TITLE OF INVENTION		Absorber for bathroom fixture
<p>The invention is a bathroom vacuum-absorbing device attached to a wall with a shoe-pinching device which the shoes used in bathrooms, bathrooms, veranda, etc. to remove moisture. When using shoes in bathrooms, veranda, or places where there is a lot of water, it prevents mold from forming because the shoes are wet. Use this device to remove moisture quickly and prevent the shoes from getting wet. In the case of low-threshold bathrooms, Also, it solves the inconvenience of getting shoes in between the doors when you take them out of the bathroom on the low threshold.</p>		

KR-03	AUTHOR(S)	Park Ho Jun
ORGANIZATION		Chung-Ang University
TITLE OF INVENTION		Shower water saving flow meter
<p>When taking a shower at home, most people usually take a shower with water on. Therefore, they doesn't know how much water they consumes while taking a shower. This invention can compensate for these shortcomings and save water. Taking a shower while checking the amount of water rather than taking a shower with an insensitively turned on would help save water in a water-poor country.</p>		

KR-04	AUTHOR(S)	Bae Seong Kyeong
ORGANIZATION		Kyunghwa Girls' Middle School
TITLE OF INVENTION		Umbrella arrangement using highly absorbent resin
<p>Umbrellas tend to be irritating when storing it after use because the rainwater continuously drip from it. Also, in most buildings, an umbrella plastic packer made of vinyl is installed on rainy days. Due to this, the number of plastic covering that is thrown away is close to 100 million a year. To solve this problem, pads using highly absorbable resin which absorbs hundred-times the water of its own weight, and is highly conservative, usually less water discharged under pressure. The invention adds pads to both sides of the umbrella shelf to help you get through and get rid of the water quickly.</p>		

KR-05	AUTHOR(S)	O Su Jeong
ORGANIZATION		Kyunghwa Girls' High School
TITLE OF INVENTION		Reading desk with friction
<p>Use the frictional force of the rubber wheel and the silicon band to turn a page. Turning the handle until the page is over, the page is turned, preventing the rubber band that sticks in the silicon band from folding the paper. A total of four rubber wheels are used, with two rubber rods on the upper right side of the book-stand being pulled out of the book-stand and the handle being attached, each time the handle is turned, four rubber bands are turned simultaneously.</p>		

KR-06	AUTHOR(S)	Lee Gyu Ri
ORGANIZATION	Kwangsu Middle School	
TITLE OF INVENTION	Moisture Removal Slipper	
There are many dangerous cases of old people and children falling down in the bathroom because of the moisture on the floor. The invention was made based on the experience of wet dry socks due to the moisture left in the slippers. The invention will reduce the risk of falling down in the bathroom, the risk of getting socks wet. It also helps to clean the bathroom by just walking around.		

KR-07	AUTHOR(S)	Lee, Jun-Hyung / Lee, Yeon-Hee
ORGANIZATION		Korea Digital Media High School
TITLE OF INVENTION		Optical sensor mouse with air-blowing function
When using a mouse, its upper surface and the palm of the hand are continuously contacted with each other and result in sweaty hands. When the external temperature is high as in the summer due to long contact between the mouse and the palm, sweat is generated in the palm of the hand, resulting in discomfort and malfunction of the mouse. To solve this problem, the optical sensor mouse is equipped with a small propeller inside the mouse to allow the wind to come out from the palm of the user so that the sweat generated on the palm can be removed.		

LEBANON

LB-01	AUTHOR(S)	Dr. Ali Zaraket
ORGANIZATION	Lebanese Innovators Society (LIS)	
TITLE OF INVENTION	Multi-Purpose Machine For Inapproachable territories worldwide	
This machine has multiple uses and is made of admired materials of high evolution, quality and resistance and it navigates through remote control or GPS. The mobility and function is guided through modern hydraulic. The machine is able to clear impassable streets from scree detritus,stones and barriers to pick it up inside and to shred. When you drive it the front of it is any in carve 30cm into the earth with a wide of 2,5m to take up earth.		

MACAU

MO-01	AUTHOR(S)	Wong Wai Hong
TITLE OF INVENTION		
Hollow Slab Formwork		
The hollow slab formwork was designed for buildings as a waterproof roof. After join together the formworks, cast concrete on the formworks to create a continuous hollow concrete slab on the roof. When raining, the water flow on the top of the hollow slab to the upper drainage. If any water leak into the hollow layer (of course this is only a few water) the water flow to the lower drainage. Some dark color metal pipes and some light color pipes installed at some positions of the hollow slab that the sun shine to the dark pipes can heat the air inside the metal pipes. The heated air rising up and exhaust outside, the air inside the hollow flow to the dark color metal pipes supplement the exhaust air. The light color pipe doesn't absorb the solar heat, so that the cool air flow to the hollow layer. The air flow carries out the heat and evaporate the leakage water. Another usage of this formwork is to construct the sound insulated slab.		

MO-02	AUTHOR(S)	HUANG RI XIN / CHAO CHI IAN
ORGANIZATION	The Workers' Children High School, Macau	
TITLE OF INVENTION	A Lampblack Filtration Component	
In order to solve the problem of lampblack pollution, we should design a machine component that can purify kitchen exhaust lampblack to protect people's health and environmental hygiene. The water and grease in the kitchen waste gas are cooled and liquefied by using the liquefaction principle of gas. Through high pressure under the action of electrostatic field, the lampblack gas is ionized. Use ozone to purify grease molecules and odors. Use a UV lamp to purify the gas that is finally ready to be emitted.		

MO-03	AUTHOR(S)	AO IEONG HAO KONG / IEONG IOK ON / LIANG YIXING (Teacher)
ORGANIZATION	The Workers' Children High School, Macau	
TITLE OF INVENTION	Smart Air-conditioning Window with Filtering Function	
Our project is to create a smart window which can filter out the smog and improve indoor air quality. The use of high-density activated carbon fiber filter screen, and the use of pressurized filtration. The air filtration system, temperature control system and humidification system are combined into the window. Put the concept of automated control on this smart window. The smart window can be widely used in many indoor places, such as our home. We can see a very good prospect. If the smart window can be widely used, people indoor will not need to worry about air issues.		

MO-04	AUTHOR(S)	LAO IEK TONG
ORGANIZATION	Pui Ching Middle School Macau	
TITLE OF INVENTION	Luggage Anti-Theft Device	
To make this device, we need the following materials: Arduino UNO (development board), Servo (servo motor), AS608 optical fingerprint identification module and 3D printed housing. This antitheft device can only be unlocked with your fingerprint, so your luggage won't be stolen easily. The device detects the fingerprint before it is locked. If you want to unlock the suitcase, use the same fingerprint. If the fingerprint matches, the lock unlocks. Otherwise, the alarm sounds like those anti-theft devices in supermarkets.		

MO-05	AUTHOR(S)	YANG HAO / WAN CHI LOK / LIN ZHIRUI
ORGANIZATION	Hou Kong Middle School	
TITLE OF INVENTION	The system of managing density of passengers on buses	
Nowadays, traffic jam is a serious issue in many cities. To solve this problem, we invent a system based on thermal imaging technologies which aims at improving the efficiency and allocating room in franchised buses. Advantages: 1. More accurate in measuring buses full-loaded rate, 2. Making comparisons with selected areas in & using LED lights, voice reminder to guide passengers to move to less-crowded areas, and 3. Accumulating the full-loaded rate through big data so as to meet the actual demand in different time.		

MO-06	AUTHOR(S)	MOK HOI CHON / WONG HOU WANG / ZHOU JITONG
ORGANIZATION	Pui Ching Middle School Macau & High School Affiliated to Fudan University (Qingpu Campus)	
TITLE OF INVENTION	A new subjective refractometer to detect early school myopia	
Myopia is a serious public health problem in schools all over the world, and early detection of myopia is very important for the control of its progression. It's hard to diagnose myopia without professional knowledge and equipment, which makes it more difficult for early detection in students. On the basis of optical focusing and chromatic aberration theories, we designed a new subjective refractometer to easily diagnose myopia.		

MO-07	AUTHOR(S)	Dr. Yi Zhun Zhu / Dr. Sherry Huang
ORGANIZATION		iHerb Co. Ltd., Macau
TITLE OF INVENTION		Smart LED facial device
iHerCare LED Smart Beauty Mask, developed by a group of famous dermatologists from domestic tertiary hospitals leading by Chair Professor Zhu YiZhun, the dean of pharmacy school of Macau University of Science and Technology and the former dean of pharmacy school of Fudan University, is a cosmetic nursing and therapeutic instrument specially designed for the Chinese people's skin. And setting a certain wavelength and energy, this mask will be able to promote the regeneration of cell, to improve the elasticity of the skin and to reduce wrinkles and pigmentation of the skin.		

MALAYSIA

MY-01	AUTHOR(S)	Assoc. Prof. Dr. Mohd Ikmar Nizam Bin Mohamad Isa / Ms. Nur Hafiza Binti / Mr. Muhamaruesa
ORGANIZATION	Universiti Malaysia Terengganu	
TITLE OF INVENTION	HeXAN® Cell : Novel Green Hydrogen Ion Rechargeable Battery	
<p>Analysts forecast the market of mobile technology will grow up to 71% in 2025, and thus making the need for portable power pervasive. Unfortunately, heavy metal content, leakage system, highly reactive and possibly explosion of commercial battery led to the serious environmental and safety issues. Exceptional low cost and environmental friendly bio-based materials, 2-hydroxyethyl cellulose/ammonium nitrate (HeXAN) solid bio-based polymer electrolyte Hydron cell could prove to be an ideal solution to counteract the risks. With the open circuit voltage of 1.0 V and a current of 5 µA for a single-cell, it will be the best answer for sourcing in low-current devices and holds a good footing to be commercialized.</p>		

MY-02	AUTHOR(S)	Mazin Abed Mohammed / Mohd Khanapi Abd Ghani / Raed Ibraheem Hamed / Dheyaa Ahmed Ibrahim / Burhanuddin Bin Mohd Aboobaider
ORGANIZATION	University of Anbar, Universiti Teknikal Malaysia Melaka	
TITLE OF INVENTION	Nasopharyngeal Carcinoma Identification Model Using Machine Learning Techniques	
This work is to implements a novel unsupervised system for an Intelligent Diagnosis and Nasopharyngeal Carcinoma Identification Model Using Machine Learning Techniques that can help a physician in decision making. The system improves the speed and accuracy in diagnosis and treatment, reduces costs, improves design and implementation of clinical guidelines and helps to create a novel software that improves the process of identifying Nasopharyngeal Carcinoma biomarkers based on fractal geometry features. The main objective of the system is to provide a quick and precise expert guidance to Nasopharyngeal Carcinoma diagnosis. It helps in reducing the knowledge gap between different individuals in Nasopharyngeal Carcinoma diagnosis.		

MY-03	AUTHOR(S)	GOMATHY D/O SANKARAN
ORGANIZATION	SJKT KANGKAR PULAI, JOHOR, MALAYSIA	
TITLE OF INVENTION	SMART HEALTHY DIET BOX AND PLATE	
<p>Malaysia is known as Asia's fattest country, recorded an increase in its obesity rate last year (2016) with the latest statistics showing that the overweight and the obese make up nearly half of its 30 million populace. The country's children and teenagers have a dietary problem that needs to be addressed immediately. The current research involving 8705 primary and secondary school students nationwide indicated that more female students 32.9% were overweight compared to their male counterparts (24.7%). To solve this dietary problem among Malaysian student's population, "Healthy diet box and plate" is designed to overcome the dietary problem among our students. Healthy diet box and plate is innovated based on the food pyramid. Inside the 'Healthy diet box and plate' there will be 4 to 5 food portion. The larger food portion is allocated for the green vegetables and fruits group. Two same size portions are allocated each for the grain group (bread, cereal, rice, pasta) and the meat & milk group. A very small portion is allocated for fats & oils. "Healthy diet box and plate" will help to keep their food intake of total fat and saturated fat low and also reduce their chances of getting certain diseases and help them maintain a healthy weight.</p>		

MY-04	AUTHOR(S)	GOMATHY D/O SANKARAN
ORGANIZATION	SJKT KANGKAR PULAI, JOHOR, MALAYSIA	
TITLE OF INVENTION	AQUA BICYCLE	
Aqua bicycle is designed to get clean water especially the pond, river or well water. The unfiltered water is poured in the container placed on the carrier of the bicycle. When the bicycle is pedaled, the motor will pump the dirty water into the filter. The water is filtered using the transparent hose. Then, the clean water is pumped into the front container through the hose. The clean water in the container at the front is now ready to be used. To get the amount of filtered water needed, we just have to fill in the dirty water into the back container and start pedaling. The more we pedal the more clean water we get and the faster we pedal the shorter time is taken to filter the water.		

MY-05	AUTHOR(S)	Assoc. Prof. Dr. ASMA ABDUL RAHMAN / Dr. AHMAD ABDUL RAHMAN / Assoc. Prof. Dr. MOHD FADHIL MD DIN / Assoc. Prof. Dr. MAHAZAN ABDUL MUTALIB / Dr. ZETTY NADIA MOHD ZAIN
	ORGANIZATION	Faculty Of Major Languages Studies, Islamic Science University of Malaysia (USIM)
	TITLE OF INVENTION	A NEW NAQLI AQLI INDEXING CONTENT PSYCHO LINGUISTIC SEMANTIQUE-SPIRITUAL TRAINING FOR SUSTAINABLE AND THE HAPPINES UMMAH BY USING METODOLOGY OF AI-TAWLIDIAH "ATaWM&Mgg NFBPcyLsss"
<p>The current nature of education models lacks intervention that relates to the psycho linguistic semantique and spirituality of the individual for sustainable and the happiness of ummah. Islamic reveal knowledge based on the Quran, hadith, tafseer, and other Islamic references are very rich resources which need to be discovered and used as guidance in solving problems of ummah from all aspects of life. The integration of Islamic knowledge inputs with new method for psycho linguistic semantique will synergize the strength of both the naqli and aqli aspects of both worlds. The aim of this study is to propose a new Islamic (naqli) indexing content to be used in neurofeedback training for sustainable happiness ummah. The objectives of this study are (1) to investigate the existing model of indexing content in Islamic in psycho linguistic semantique education knowledge. (2) to analyze existing index content of Islamic knowledge. (3) to develop a new Naqli indexing content for psycho linguistic semantique spiritual neurofeedback training for sustainable and the happiness ummah. The textual and content analysis and textual evaluation will be used as methodology for this study.</p>		

MY-06	AUTHOR(S)	SAIFUL AMRI MAZLAN / WIRA JAZAIR YAHYA / MOHD AZIZI ABDUL RAHMAN / MOHD HATTA MOHAMMED ARIFF / AHMAD MUHSIN ITHNIN
	ORGANIZATION	Malaysia-Japan International Institute of Technology
	TITLE OF INVENTION	MAGNETORHEOLOGICAL DAMPER
<p>The present invention relates to a semi-active damper using a controllable magnetorheological (MR) fluid technology by manipulating an external magnetic field. This MR damper is a step forward to replace the existing MR damper with the introduction of a static concentric valve using serpentine magnetic flux in a compact structure. The simplicity of the design has the advantages of easy to maintain and simple manufacturing process, which will substantially reduce the manufacturing cost. Nevertheless, the design improves the operational range of working force, and can be used in wide applications such as in automotive, aviation and vibration control.</p>		

MY-07	AUTHOR(S)	Krisanahari Siva / Karpagalaxmy Siva / Haarsini
	ORGANIZATION	Sunway International School (Ontario) and SK Pusat Bandar Puchong (1)
	TITLE OF INVENTION	WalkAid4U
<p>The prevalence of the aging community is on the rise. Moreover, the people with underlying chronic diseases face challenges of disease condition with aging. Our invention focuses on a specific need; aging people with visual and mobility problem especially those related to osteoporosis and stroke. The WalkAid4U is projected to aid people doing their walking routine in rehabilitation and physiotherapy programmes. Besides, WalkAid4U would help reduce dependence and the need for caretakers. It increases their mobility safety and at the same time enables them to enjoy outdoor activities with loved ones; enhance the quality of life.</p>		

MY-08	AUTHOR(S)	WIRA JAZAIR YAHYA / SAIFUL AMRI MAZLAN / HAIRI ZAMZURI / MOHD AZIZI ABDUL RAHMAN / AHMAD MUHSIN ITHNIN
	ORGANIZATION	Malaysia-Japan International Institute of Technology
	TITLE OF INVENTION	REAL-TIME NON-SURFACTANT EMULSION FUEL SUPPLY SYSTEM (RTES) FOR ROAD TRANSPORT
<p>Research on water-in-diesel emulsion as fuel in diesel engine has been done since 1930's. Results from all those researches are consistently reported that improve in combustion efficiency, fuel consumption and simultaneous reduction of NOx and PM emissions which is cannot be achieve by other diesel technologies. However, commercialization of emulsion fuel, an additive called as surfactant is needed to hold water and fuel together for a longer time. Surfactant is expensive and will make price of emulsion fuel double from its original diesel fuel. Therefore, in order to eliminate dependency on using surfactant, a "Real-Time Non-Surfactant Emulsion Fuel Supply System" or RTES has been invented. RTES combines the mixing force of high shear mixer and ultrasonic agitation together with water mist injection to ensure the instant homogeneous formation of emulsion fuel. RTES is installed near to fuel pump and supply emulsion fuel as soon as it is produced. No surfactant and no additional tank for emulsion fuel required. Reduction of fuel consumption around 10% with about 50% reduction of NOx and PM is a promise. RTES can be installed into a diesel engine requiring no modification with plug and play type installation and minimum running down-time. Calculated return of investment (ROI) from fuel saving is less than 1 year and the transportation industry players can save even more money by fulfilling emission regulation requirement in some countries or at least less money to fork out for exhaust emission after treatment equipment.</p>		

MY-09	AUTHOR(S)	Norliza Binti Abdul Wahab
	ORGANIZATION	Malaysian Cocoa Board
	TITLE OF INVENTION	COCOA SERUM COSMETIC
<p>Cocoa serum cosmetic (Figure 1) rehabilitates and repairs aging skin through significant ($p < 0.05$) inhibition of collagenase by 63.0%, UVA ratio of 0.553 considered as moderate (two star) Boots Star Rating for UVA protection and elevation of R7 value from 4.76 to 6.82% for skin elasticity. Ultrasonographic topical therapy has also increased the mean thickness of skin epidermis and dermis layers from 0.13 ± 0.02 to 0.15 ± 0.03 mm ($p < 0.05$) and 1.43 ± 0.24 to 1.57 ± 0.22 mm ($p < 0.05$), respectively. The mercury, plumbum, arsenic and cadmium level for the sample was 0.01, < 0.006, < 0.004 and 0.0004 mg/kg, respectively and in compliance with the ASEAN Cosmetic Directive regulation.</p>		

MY-10	AUTHOR(S)	Augustine Arul Raj S/o K.Selvaraj / Irfan Bin Mazlan / Muhd Afifi Bin Muhd Fuad
	ORGANIZATION	SMK Bandar Uda Utama
	TITLE OF INVENTION	Lord Of Lock (LOL)
<p>As a matter of fact, a majority of household still uses the old school security system such as key locker, padlock and others that need conventional keys to unlock it. One problem that usually arises is this old school security system is the loss of keys. Besides, the keys can be easily duplicated by other people, hence, lowering the safety aspect. There is also no proper alarm system attached to the locks for better security. Due to this, we have invented LORD OF LOCK (LOL) which offers more secured security system. LOL system provides no key security system it is a fully mobile control. LOL uses 3 systems – Lock System 1, Lock System 2 and Alarm System. The materials needed to build up LOL are model for doors, Arduino Uno, Servo Tower and others.</p>		

MY-11	AUTHOR(S)	Nilavarasen A/L Subramaniam / Mugilan A/L Kovalan / Diwviyaasri A/P Govalan / Logeswari A/P Murugan / PR Sooriaprakass A/L Ramachandran
	ORGANIZATION	SJKT JALAN YAHYA AWAL (PRIMARY SCHOOL)
	TITLE OF INVENTION	SMART, SAFE AND SUSTAINABLE (3S) URBAN FARM
<p>3S Urban Farm is an automated and self-sustain vegetable farm that has been designed to produce safe, nutritious, fresh and sustainable vegetables for the consumption of city communities embedded with sensing technologies that utilises clean energies. The novelty of this product is the ability of the sustainabot to perform automated agriculture functions using solar energy. The plants are fertilized using kitchen waste and watered using recycled water from aquaponics fish tank, rain water and drain water. 3S Urban Farm benefits the city communities the most with great contribution towards urban food security, improved nutrition, waste reduction and environment preservation.</p>		

MY-12	AUTHOR(S)	Assoc. Prof. Dr. Farzad Hejazi / Prof. Mohd Saleh Jaafar / Chong Seng Shia
	ORGANIZATION	University Putra Malaysia
	TITLE OF INVENTION	Rubber Wall Damper
<p>The Rubber Wall Damper is a new device for use in buildings in order to protect structures against any type of vibration such as earthquake, wind, flood, explosion and tsunami. This device is applicable in structures by replacing to the walls inside the frames structure and fixed it to the floor and roof by using of bolts. Based on numerical simulation and experimental testing on product prototype, the developed Rubber Wall Damper is able to reduce effect of vibration in structure up to 50% to 70% which is enough to ensure the safety and serviceability of building subjected to high intensity of earthquake load. This device is able to implement in design of new structures and also in existing buildings and also able to protect structures against vibration due to vehicle, train, airplane and machineries and by consider of cost of device it is economy and feasible to use in normal structure such as residential buildings.</p>		

MY-13	AUTHOR(S)	Assoc. Prof. Dr. Lau Yee Ling / Lai Meng Yee
	ORGANIZATION	University of Malaya
	TITLE OF INVENTION	DEVELOPMENT OF LOOP-MEDIATED ISOTHERMAL AMPLIFICATION-LATERAL FLOW METHOD FOR THE DETECTION OF MALARIA
<p>This is a rapid diagnosis approach for malaria using loop-mediated isothermal amplification (LAMP) combined with a lateral flow device (LFD). By adding the biotin-labeled and FAM-labeled loop primers to the LAMP reaction solution, the end product can be visualized on a lateral flow dipstick. Only two µl of end product is loaded onto the well of dipstick, amplified samples exhibited colored lines at both control (C) and test (T) positions, denoting a positive sample, whereas the unamplified samples exhibited lines at the 'C' position only, which denotes a negative sample. The entire procedure takes approximately 42 min to complete.</p>		

MY-14	AUTHOR(S)	Dharishini A/P Kannan / Nur Dina Deanna Binti Omar Nahu / Priscilla A/P Ramni Ahmad Johan Isqandar Bin Aimy / Ahmad Ainur Iman Bin Ahmad Zani
	ORGANIZATION	Mara Junior Science College Terendak , Melaka
	TITLE OF INVENTION	New discovery of pineapple leaves fibre and recyclable plastics as eco plyfibre for future sustainability
<p>Fibre-reinforced polymeric composites have received widespread attention for the past decades because of their high specific strength and modulus. Pineapple leaf fibre is waste product of pineapple cultivation. HDPE is the most recognized recyclable plastic and use to make detergent, shampoo bottles, milk cartons, and motor oil. These plastics take around 450 years to decompose in the environment which will contribute to the earth's waste disposal problem. In conclusion, this project resist water, anti-termide, high flexibility, strong yet flawlessly shiny surface. These make it the true breakthrough green innovations in the future.</p>		

MY-15	AUTHOR(S)	NUR SYAHIRAH ADIBAH BINTI JUHAMSA / ALYSSA JAZIRA BINTI AZMIE / NURUL AIN BINTI IZZUNIDDIN / NURUL QARISYA FARHANA BINTI SHARUDDIN / AZAMUDDIN BIN ZANATUNNAJIB
	ORGANIZATION	Mara Junior Science College Terendak , Melaka
	TITLE OF INVENTION	THE POTENTIAL OF POMELO PEEL WASTE WITH THYMOL AND CELLULOSE AS HIGH QUALITY BIODEGREDEABLE FOOD WRAPPER
<p>This research was done to study the potential of pectin as part of composition in food wrapper production edible films that safe and suitable for eating. We found various types of tropical fruit which produce waste that contains pectin. So, we choose pomelo as our main substance for this project because it has high content of pectin 23.83% in it skin that commonly caused the pollution. Due to the process of turning the skin of pomelo to edible film there is few steps. Cut it into smaller pieces and blend it. Secondly dry the rinds under temperature 70°C. Mix the pomelo powder with starch according to the best ratio 6:4 and sorbitol as plasticizer. The unwanted components were separated using filter paper. Following steps is cast, Dry and peel to come out with our product. Then it had been carry out with several tests such as strength, colour, elasticity and thickness to prove it is better than petroleum base films.</p>		

MY-16	AUTHOR(S)	Dr. Sharifah Norkhadiah Syed Ismail / Ms. Norsyahirah Mohamed Sopee / Dr. Emilia Zainal Abidin / Dr. Karmegam Karupiah / Dr. Irniza Rasdi / Dr. Sarva Mangala Praveena
	ORGANIZATION	Universiti Putra Malaysia
	TITLE OF INVENTION	Perforated swivel dustbin
<p>Perforated Swivel Dustbin (PSD) is a solution to waste separation at home. It made of a rigid frame, stackable (occupied less space) and suitable to be used in a tiny house. The perforated cylindrical surface reduces retention to the plastic bag, so that it can easily pull out to throw the rubbish. It is a swivel bin (360 degree), allows flexibility to the user to place it at any angle. Adequate compartment (3 bins) for separation with colour coded for waste categorization. It is detachable, easy to dismantle and can be used to store other household items.</p>		

MY-17	AUTHOR(S)	Ng Shan-Zi / Yeoh Sheng Ze / Lum Mun Chak / Chloe Soh Ker Er / Jayven Lee Cheng Kiat
	ORGANIZATION	SJKC YUK CHAI – TEAM ROBOWIS (PRIMARY SCHOOL)
	TITLE OF INVENTION	AIR PROJECT (AGRICULTURE INTELLIGENT ROBOT)
<p>AIR PROJECT is using robot to do small farming at home and encourage young generation in farming. Farmerbot is separated into two parts, front part is controlled by a wireless remote controller and the back part is controlled by an app that we have created called Airfarm 4.0. In the front part of robot, we have attached a soil tester to analyse the moisture and fertility level of the soil. Then, Farmerbot will spray nutrition water to moisture the soil. After treated the soil, the quality of soil will improve. Besides that, we also linked 3rd parties app to Farmerbot - Flower care. It is an app to assess the fertility of the soil, temperature, sunlight and moisture. It is able to dig soil with its digger claw and is able to plant seeds with seed-planter.</p>		
MY-18	AUTHOR(S)	ASMA' BINTI AHMAD / MUHAMAD DOM BIN AHMAD
	ORGANIZATION	SMK ARAU, PERLIS INDERA KAYANGAN & KOLEJ MATRIKULASI KEDAH
	TITLE OF INVENTION	CARRIER COUNSELLING WEB BLOG
<p>Nowadays, Guidance and Counseling Services is a very important service in helping field especially at school. Hence, we was set up educational web blog. The link educational blog is http://cgkaunseling.blogspot.my. It is as a learning aid for students. In this blog, as providing a medium of counseling education at high school level. This blog provided a carrier education after main public examination in Malaysia. For example, this blogs includes new about the latest news on application to Public Higher Education University, Scholarships, Education Loans, Learning Skills Tip, Skills Higher Education College and other matters relating to schooling and adolescents.</p>		
MY-19	AUTHOR(S)	Linta Iftikhar / Muhammad Feras Iftikhar / Ifra Iftikhar / Prof. Dr. Muhammad Iftikhar Hanif
	ORGANIZATION	SK & SMK Seksyen 9 (Schools) & MAHASA UNIVERSITY MALAYSIA
	TITLE OF INVENTION	EduQR: Learning Through QR Codes & Gamification
<p>EduQR is new innovative methodology for teaching & learning among children by using QR Codes through QR eBooks (Mini Pockets Books), QR Rubik's cube, Tattoo (QR Tattoo by QRStamps), Homework (QR Homework), Colour Coding (QR Colours), QR Rulers, Book Covers, Password Protected QR Profiles, QR Stationery Box, QR Notes, QR Puzzles, QR Games, QR Spinner etc.as well as mental capabilities by rapid interaction.</p>		
MY-20	AUTHOR(S)	Fisal Ahmad
	ORGANIZATION	Malaysian Cocoa Board
	TITLE OF INVENTION	Cocoa (<i>Theobroma Cacao</i>) based activated carbon from discarded nibs
<p>The Cocoa (<i>Theobroma Cacao</i>) nib based activated carbon (CNAC) was produced from discarded cocoa nibs during the process due to some deformities, infections, and uneconomical sizes. This discarded cocoa nibs were defatted and compacted into pellets with a specific density, carbonized to produce high strength monolith at 800°C. The char was activated with CO₂ to produce activated and further subjected to acid treatment. The activated carbon (CNAC) produced was characterized by its high surface area (1,932.36 m²/g), mesopore surface area (659.60 m²/g), mesopore volume (42.68 %), average pore size (5.52 nm) and low ash content (3.77 %). Analysis by FTIR suggested completion of the aromatization process. Removal of silica at the entrances of the also showed in the SEM micrographs.</p>		
MY-21	AUTHOR(S)	Kirtharna A/P Kumaran / Shirndhiya Rachini A/P Jegis / Sancena Madavan / Muvendran A/L Subramaniam / Laavanan A/L Vigneshwaran
	ORGANIZATION	SJK(T) KINRARA (PRIMARY SCHOOL)
	TITLE OF INVENTION	Eco-Friendly Hardwater Filter
<p>Hard water is usually defined as water, which contains a high concentration of calcium and magnesium ions. We tested 6 different types of hardwater samples with natural materials as filters such as pomelo peels, coconut shell, moringa Oleifera, corn cobs and sugar cane bagasse. Then, we created a hardwater filter which contains all these natural materials stage by stage. Out Filter is proved useful as hardwater filter by using resistance reading. Comparisons were made with normal water filter and also hardwater filter for filtration of Magnesium and Calcium metal ions.</p>		
MY-22	AUTHOR(S)	Dhyaana Shivanyaa Chandrasegar / Keexaline Muniandy / Yogendran A/L Kalai Saleviam / Keeshaan A/L Krishnan / Swaathi Mullaichelvan / Devika Muniandy
	ORGANIZATION	SJK(T) KINRARA (PRIMARY SCHOOL)
	TITLE OF INVENTION	HYBRID INSECT REPELLENT CAMPING KIT
<p>Our invention is named A Hybrid Insect Repellent Camping Kit consist of 10 different products that have been created using the Hybrid essential oil from our experiments on different types of insects using different types of plants. A research was carried out to identify the plants that reacts as the best insect repellents. Plants are known as insect repellent because of its secondary metabolites. The secondary metabolites in plants extracted through steam distillation are known as essential oils. Secondary metabolites are large number of specialized compound known for its defence system. An apparatus was innovated to perform steam distillation which can extract the plants secondary metabolites. The final findings showed that the hybrid oil of Lemon Eucalyptus and Lemongrass repellency is 100%. This concludes that essential oil extracted from citrus and citronella family are the best insect repellent.</p>		
MY-23	AUTHOR(S)	Prof. (Assoc.) Dr. Mohd Ikmar Nizam Haji Mohamad Isa
	ORGANIZATION	Universiti Malaysia Terengganu
	TITLE OF INVENTION	MPTcompanion: Teaching & Learning of Materials Processing Technology Via Mobile Apps
<p>The education sector needs to adapt fast with technological advancement in order to remain relevant in upcoming years. The way class or lecture conducted especially needs some changes. With the high number of mobile phones usage among students, utilizing the mobile phones advantages such as mobile application (Apps) is the way forward for the education sector. The MPTcompanion is an app created with the industry revolution 4.0 in mind. User of this Apps, especially students enroll in materials processing technology (FBN4401) at UMT and learn courses.</p>		

MY-24	AUTHOR(S)	PALSAN SANNASI ABDULLAH / RIZKI WANNAHARI / SITI HANISAH ABDULLAH / NOR ASFALIZA ABDULLAH
ORGANIZATION		UNIVERSITY (UNIVERSITI MALAYSIA KELANTAN)
TITLE OF INVENTION		NANO-MAGNETIC ADSORBENT COMPOSITE [N-MACOM]
N-MACom, short for Nano-Magnetic Adsorbent Composite, is a mix of agrowaste derived biocarbon and iron oxide particles with magnetic characteristics. This product and its derivative will and can be an alternative to existing carbon based and similar purposed chemically synthesized products in the market, i.e. activated carbon, biochar, zeolite, polyaluminum chlorides, resins, microbeads, etc. However, the existing products lack nanomagnetic characteristics. Nano-magnetic properties enhance clarification, filtration, and removal of multi waste pollutants from water and waste water. Adsorption process is rapid with convenient after-use separation capability. Applicable for surface, groundwater, and waste water treatment.		
MY-25	AUTHOR(S)	Nadzirah Zainordin / Syuhaida Ismail
ORGANIZATION		UTM RAZAK SCHOOL OF ENGINEERING AND ADVANCED TECHNOLOGY
TITLE OF INVENTION		Framework of Sustainability Implementation Assessment For Higher Education Institutions In Malaysia
Higher Education Institutions worldwide started implementing sustainability in their institutions especially to those who signing the declaration. Speaking about declaration, Malaysia not in a list but thru the formation of National Higher Education Strategic Plan (2007-2020) and Higher Education Blueprint (2015-2025) formed by the Ministry of Higher Education Malaysia, that sustainability it's one of their main concern. Therefore, from this study, a new contribution to the bodies of knowledge especially on understanding the sustainability implementing assessment in Higher Education Institutions can be increased in the context of Malaysia Higher Education Institutions.		
MY-26	AUTHOR(S)	Jinghong Low / Soonhin Hew
ORGANIZATION		Multimedia University
TITLE OF INVENTION		Memorise Chinese Characters Better with Graphical Association Strategy
A learning strategy to memorise the Chinese Characters better is displayed. A graphical arithmetic strategy that associated the character with its meaning, which represented in graphic, is used in this learning strategy. This memorises strategy eases the learners of Chinese as a foreign language (CFL) to understand the meaning of a character by using the morphological animation presentation visually. This morphological animation presentation helps to associate the meaning of the Chinese Characters with its graphical presentation. This learning strategy is more effective than the conventional learning strategy as it is easier and fun to adopt.		
MY-27	AUTHOR(S)	GNANA JOTHY CHIDAMBARAVELU / MOHNISSH SANGGARAN / MUGILAN MUNIANDY / NISHASRY KARUNAGARAN / SRI SHIVANI SARAWANAN / VIJAYA SUBRAMANIAM
ORGANIZATION		SJKT LADANG WELLESLEY
TITLE OF INVENTION		NATURAL COPPER AND BRASS CLEANSER
Producing natural copper and brass cleanser that are effective, cheap, easy to use, harmless and environmentally friendly will be the better choice of the consumers. This inspired the production of natural copper and brass cleanser using kenaf leaves powder that contains organic acid which weaken the bonding of tarnish and ease the cleansing process. The powder produced by drying, powdering and packing process. Homemade dehydrator was innovated and used to ease and fasten the drying process. The kenaf leaves powder is usefull for copper and brass industry as they can use it to clean the product after a long storage.		
MY-28	AUTHOR(S)	Prof. Muhammad Iftikhar Hanif / Prof. Muhammad Umar / PROF DR. RIAZ Ahmad / Dr. Asif Maqsood Butt / Dr. Muhammad Osama / Mr. Khurram Shahzad
ORGANIZATION		RAWALPINDI MEDICAL UNIVERSITY & MAHASA UNIVERSITY MALAYSIA
TITLE OF INVENTION		MEDHUT: DIGITAL LIBRARY OF MEDICAL APPS / Online Indexation & Citations System for Healthcare Related Apps With Colour Coding
A computerized system (MedHut) configured to categorise & deliver healthcare related apps to medical students, practising clinicians, researchers, scholars & academic staff. The computerized system may categorise hundreds of thousands medical apps coded with different colours to represent different specialties as well as Medical Apps Popularity Index (MAP Index) based on no of downloads, expert reviews & innovative citation tool for medical apps (Apps Citation Impact Factor i.e. ACIF). Physician friendly MedHut system based on 3 unique parameters i.e., indexation & categorisation of Apps by group of relevant specialist, colour coddling to represent different specialties & MAP Index (based on No of downloads, Specialist reviews & ACIF) to share medical knowledge through medical apps. The computerized system may be further configured to recommend medical apps by using a Recommendation Algorithm (RA).		
MY-29	AUTHOR(S)	Hii Yiik Siang / Dr. Stephanie Chan
ORGANIZATION		Curtin University Malaysia
TITLE OF INVENTION		Development of a Continuous Processes Lab Scale Extrusion Device for the Encapsulation of Bacteria in Alginate Microbeads
This invention incorporates air extrusion and impinging aerosol methods in developing a lab-scale microencapsulation device suitable for the continuous production of microbial inoculants. Pressurized air will be used to deliver cross linking polymer and alginate solution to micro-sized pneumatic nozzles. Then, microbeads can be produced by oppositely atomizing cell-polymer and cross-linking solution, calcium chloride in an encapsulation chamber. Droplets solidified upon contact with the mist of cross-linking solution. This invention allows the production of microbeads in a continuous manner as microbeads can be collected from the base of encapsulation chamber.		
MY-30	AUTHOR(S)	ASSIST. PROF. DR. MOHAMED AKHIRUDDIN IBRAHIM / ASSOC. PROF. DR. ADNAN MOHAMED YUSOFF / ASSIST. PROF. DR. FASZLY RAHIM / SHAHIRAH SULAIMAN / SITI NABILAH MOHD ZUBIR
ORGANIZATION		UNIVERSITI SAINS ISLAM MALAYSIA
TITLE OF INVENTION		I-FALAK HUB
Astronomy is often attributed by many scientists as the 'queen of science' due to its contribution in stimulating the development of various disciplines. Using multimedia as main platform to learn about a branch of studies is not something new today. I-FALAK HUB is an interactive learning courseware that enable user to learn about astronomy's scientific facts in the Quran with an interactive, innovative and user-friendly design. In addition, there are many elements that are provided in this courseware such as search video, quiz sites, games and others exciting element that make the user enjoy when using this invention.		

MY-31	AUTHOR(S)	ASSIST. PROF. DR. MOHAMED AKHIRUDDIN IBRAHIM / ASSOC. PROF. DR. ADNAN MOHAMED YUSOFF / ASSIST. PROF. DR. MOHD ZOHDI MOHD AMIN / ASSIST. PROF. DR. FASZLY RAHIM / NUR NASIAH AHMAD KAMIL
	ORGANIZATION	UNIVERSITI SAINS ISLAM MALAYSIA
	TITLE OF INVENTION	SMART MIRACLE IDENTITY
<p>The fingertip are very unique because its shows the identity of someone for every person in the planet. The fingerprint is a special things that humans owns because everyone finger is unique to himself, every person that created no matter whether he or she still alive or who has ever lived in the world already has a really set of incredible finger prints. Through the fingerprint, we can able to know about which individual we are currently talking about. Thus, this research and invention will present an application named Smart Miracle Identity which uses coding HTML. CSS, PHP and JavaScript.</p>		

MY-32	AUTHOR(S)	RAYNER ALFRED / RAYNER HENRY PAILUS
	ORGANIZATION	UNIVERSITI MALAYSIA SABAH
	TITLE OF INVENTION	MADBOOST: A Multiple Adaptive Diversified Boosting Approach to Infrared Face Recognition Based on Ensemble Classifiers
<p>The proposed Multiple Adaptive Diversified Boosting (MADBOOST) approach to Infrared face recognition system is suggested to be developed based on multiple feature extraction and selection methods and ensemble classifiers. It captures enriched images using multiple Feature Extraction methods, optimizes features selection using GA and finally applies ensemble approach of classification for accuracy of face recognition task. MADBoost can be applied in variance environments for access control, identification system, surveillance and pervasive computing in low light. This is very useful in building a smart and green building as it can save more electricity energy as it can be applied in low light environments.</p>		

MY-33	AUTHOR(S)	ASSOC. PROF. TS. IR. DR. SYUHAIDA ISMAIL / AINARULL ASSIKIN BT ABDUL HADI
	ORGANIZATION	UNIVERSITI TEKNOLOGI MALAYSIA
	TITLE OF INVENTION	CRITICAL SUCCESS FACTORS FRAMEWORK FOR PUBLIC HOUSING IN MALAYSIAN CONSTRUCTION INDUSTRY
<p>Critical success factors (CSFs) are the important elements in achieving successful public housing project in Malaysian construction industry. This invention, in a form of framework, consists of CSFs applicable for contractors to prevent delay and abandoned public housing projects. These CSFs are divided into five groups: 1) Financial; 2) System Process; 3) Human Resources; 4) Contracts; and 5) Project Profile. This invention is important for the government to ensure the public housing project is completed within time, cost and quality. This invention is created to meet the Malaysian Budget 2018 in providing 247,000 units affordable houses to the local people.</p>		

MY-34	AUTHOR(S)	SYUHAIDA ISMAIL / MOHD HAFIS AHMAD / ABD LATIF SALEH
	ORGANIZATION	UNIVERSITI TEKNOLOGI MALAYSIA
	TITLE OF INVENTION	CRITICAL SUCCESS FACTOR OF READINESS TOWARDS CHANGE MANAGEMENT IN THE MALAYSIAN PUBLIC ORGANISATION
<p>Organisational change occurs when an organisation makes a transition from its current state to some desired future state in minimising employee resistance and organisation cost while maximising the effectiveness of the change effort. Public organisation is no exception in this management process. Thus, the readiness on change management was the critical element to be delving more to overcome these issues. This invention of "Critical Success Factor of Readiness Towards Change Management in the Malaysian Public Organisation" will provide a positive impact on change management planning, which ultimately helps in ensuring more effective change programme implementation in the public organisation in Malaysia.</p>		

MY-35	AUTHOR(S)	ASSOC. PROF. TS. IR. DR. SYUHAIDA ISMAIL / IR. AZLAN OTHMAN
	ORGANIZATION	UNIVERSITI TEKNOLOGI MALAYSIA
	TITLE OF INVENTION	KNOWLEDGE MANAGEMENT FRAMEWORK FOR MALAYSIAN CIVIL ENGINEERING CONSULTANTS IN CONSTRUCTION INDUSTRY
<p>Knowledge management (KM) is defined as an innovation of systematically gathering, storing, classifying, documenting, modifying, sharing and applying knowledge and expertise on a specific subject in organisations. Currently, there is no proper framework on how this could be effectively and efficiently implemented is in place. It was observed that knowledge, if properly harnessed and leveraged by the organisation, will enable the firm to stand out from the competition and outperform its rival, thus maintaining the competitive edge. Hence, this invention is created as to close the gap in terms of the existence of available frameworks in properly implementing knowledge management.</p>		

MY-36	AUTHOR(S)	ASSOC. PROF. TS. IR. DR. SYUHAIDA ISMAIL / NUR FATIN SYAZWANI BINTI ABU BAKAR / LAR. DR. ROHAYAH CHE AMAT
	ORGANIZATION	UNIVERSITI TEKNOLOGI MALAYSIA
	TITLE OF INVENTION	FRAMEWORK OF MALAYSIAN CONTRACTORS' PERFORMANCE IN SUSTAINABLE CONSTRUCTION PROJECT
<p>This invention is to provide a framework in evaluating Malaysian contractors' performance in sustainable construction projects. It offers sustainable construction's best practice in guiding local contractors to deliver projects within stipulated time, acceptable cost with equivalent quality into improvising the local contractor's performance and competitive edginess and helping the local contractors in developing their strategies for meeting a changing competition environment. It also offering creation and dependable administration of a solid assembled condition in light of asset proficient and natural standards. It possesses high potential of marketability as it helps contractors to move forward towards best and profitable practice.</p>		

MY-37	AUTHOR(S)	HAMIDUN BUNAWAN / NORIHA MAT AMIN / AMIN ASYRAF TAMIZI
	ORGANIZATION	UNIVERSITI KEBANGSAAN MALAYSIA
	TITLE OF INVENTION	NON-CHEMICAL APPROACH FOR CONTROLLING PAPAYA DIEBACK DISEASE
<p>Papaya dieback disease is a destructive bacterial infection that causes severe yield loss to the papaya industry. Currently, no effective control has been introduced and there is no report on resistant varieties or biocontrol agents capable of reducing the impact of this disease. Our research demonstrated that <i>Trichoderma ovalisporum</i> managed to reduce about 65% disease severity on papaya. The percentage of disease severity was low in comparison to the untreated papaya. Based on these findings, <i>Trichoderma ovalisporum</i> has the potential as a biocontrol agent based on its effectiveness to reduce and control papaya dieback disease.</p>		
MY-38	AUTHOR(S)	AVINAASH S/O RAMANI / JAYASHARMA NAIDU S/O NARENDRAN / KABILAN S/O KATHIRAVAN / AKSHAYA D/O THANASEGARAN / EMILY GOH ZI YUN
	ORGANIZATION	SEKOLAH MENENGAH KEBANGSAAN KULIM (SMKK) -SCHOOL
	TITLE OF INVENTION	ARIES – ARDUINO IN ENERGY SAVING. A CONCEPT TO BE A SOLUTION FOR GLOBAL WARMING, ENERGY SAVING AND CURRENT EFFICIENCY
<p>Energy consumption has increased rapidly in recent decades. This has elevated concerns of a future energy crisis and heavy negative environmental impacts. ARIES is a simple device based on micro-controller ARDUINO UNO which helps to reduce energy consumption air conditioner by monitor the efficiency of filter and trigger user to clean filter on time and help reduce energy consumption. Changing air filters is an easily forgettable chore. So, wouldn't it be great if your air filter could alert you when it's clogged and lost efficiency? It can be done now with our invention named ARIES.</p>		
MY-39	AUTHOR(S)	SHREYANS DAS
	ORGANIZATION	MAZ INTERNATIONAL SCHOOL
	TITLE OF INVENTION	MOPBOT
<p>A Lego Mindstorm Robot to clean up spills immediately in schools and hospitals. The MOPBOT is portable and cost-effective and has an ultrasonic sensor to detect spills and activate cleaning the spill.</p>		
MY-40	AUTHOR(S)	Ir. Dr. Mohammad Effendy Ya'acob / Nardirah Roslan
	ORGANIZATION	Universiti Putra Malaysia
	TITLE OF INVENTION	Dynamic DSSC Mini Greenhouse (D2MG)
<p>Agrivoltaics is a system designed to combine agriculture and photovoltaic electricity generation in the same space or location. This concept can be applied to achieve appropriate environment condition in greenhouse especially in hot and tropical regions. PV panels/module can be integrated as a shading structure in order to reduce the intensity of solar radiation and consequently reduce the greenhouse air temperature and increase plant productivity. This product shares some insights of the application of DSSC rooftop greenhouse structure for in-house plantation where the semi-transparent DSSC optimizes the usage of light which are relevant to the photosynthesis process of plant growth.</p>		
MY-41	AUTHOR(S)	NASRULLAH BIN HJ ABD MALIK
	ORGANIZATION	MALAYSIAN PUBLIC WORKS DEPARTMENT
	TITLE OF INVENTION	LEAKAGE CURRENT DETECTION DEVICE
<p>In all electrical installations, there is some leakage current present. The amount of leakage increases with the number of appliances connected. When the leakage current reaches the RCD safety set level, it will trigger the RCD to switch off the power supply. The principle operation of RCD is based on comparison of the current flowing in the phase (live) conductor and flowing in the neutral conductor. The amount of current flow in the phase conductor and neutral conductor should be equal if there is no leakage current. If RCD detects a difference between these two conductors, the RCD will trip immediately to protect people present against possible electrocution.</p>		
MY-42	AUTHOR(S)	Sirhajwan Idek / Ibrahim Ismail / Mohd Al-Khalifa Mohd Affnan / Waslee Razalee / Marklin Muilin
	ORGANIZATION	Keningau Vocational College
	TITLE OF INVENTION	Zombie Challenge Series
<p>Zombie Challenge Series is an education innovation that consists of English language activities that incorporates the elements of video games (challenges, context, levels, badges, points, rewards, rules, etc.) in order to deliver a more exciting and engaging learning experience that suits the interests of current generation where playing video games is part of their lifestyles. The content focuses on developing students' skills on 4Cs (critical thinking skills, creativity, community and collaboration), grammar (modal verbs, sequence connectors, sentence construction & conditionals), spelling and vocabulary. Zombie was selected as the theme due to the familiarity and popularity of Zombie in pop cultures.</p>		
MY-43	AUTHOR(S)	Arsyihne Karunagaran / DhaneshVarman Peragas / Siireenjeervi Reddy Babu Reddy / Kaarthiyaeni Surindran / Thesigaan Saravanan
	ORGANIZATION	SJKT LADANG WELLESLEY
	TITLE OF INVENTION	OREGANO HERBAL SPRAY
<p>Producing natural Oregano Herbal Spray that are effective, cheap, easy to use, harmless and environmentally friendly will be the better choice of the consumers. This inspired the production of natural oregano herbal spray using herbs which are oregano, basil and mint that not contains cholesterol and rich source of dietary fiber. Oregano contains much health benefiting essential oils such as carvacrol, thymol, limonene, pinene and ocimene which helps to kill the mosquitoes. The ingredients we used to make the oregano herbal spray are oregano, garlic, lemon, clove, cinnamon, mint and basil. The oregano herbal spray was innovated and use to kill the mosquitoes as easy and safe money.</p>		

MY-44	AUTHOR(S)	Assoc. Prof. Dr. Shanker Kumar Sinnakaudan / Siti Isma Hani Ismail / Mohd Rizal Shukor / Dr. Mohd Sofiyah Sulaiman
	ORGANIZATION	UNIVERSITI TEKNOLOGY MARA PULAU PINANG
	TITLE OF INVENTION	SMART FISH FEEDER
The smart fish feeder is invented with a flexible feed container parts which gives a smooth movement of the feed from its container to its dispensing unit. The feed dispensing unit is mounted vertically, spinning rod for feed dislodgement, stopper washer and reinforced spinner blade. These parts are connected to a DC motor and designed to work for maximum feed dispensing efficiency. A control unit assembly with an analogue timer and relay switch is provided to auto-configure unit for 144 feeding configuration within 24 hrs with optional feeding duration from 0 – 60 seconds.		
MY-45	AUTHOR(S)	RISHIKA VIJAYAN / KUMARAVELAN SARAVANAN / THINESHWARAN GOBALAN / RAMRESH SREE SREENIVASAN / TAMILARASI SAMINATHAN
	ORGANIZATION	SEKOLAH JENIS KEBANGSAAN (TAMIL) KINRARA
	TITLE OF INVENTION	VERMICOMPOST-BIN-4-ALL
VERMICOMPOST-4-ALL is ready to use mini worm based composting unit for household. It is designed to be strong, durable and water resistant, placed near kitchens for composting waste food with low maintenance and to reduce carbon footprint.		
MY-46	AUTHOR(S)	MOHAMMAD BASHARULAH KHAN BIN JAFARULLA KHAN / JAYSRIINA MAHALINGA MOORTHY / JAYSRIINI MAHALINGA MOORTHY
	ORGANIZATION	SMK SULTAN ISMAIL
	TITLE OF INVENTION	Smart Urban Organic Farm
Smart Urban Organic Farm is a semi-automated and self-sustain vegetable farm that has been designed to produce safe, nutritious, fresh and sustainable vegetables for the consumption of city communities embedded with sensing technologies that utilise clean energy. The novelty of this product is the combination of vermi farming and the in-house smart urban farming concept. The plants are fertilised using vermi compost extract which is defined as the product of the composting process using earthworms. This farm contributes towards urban food security, improved nutrition, waste reduction and environment preservation.		
MY-47	AUTHOR(S)	Ahmad Zhafran Ahmad Mazlan / Zaidi Mohd Ripin / Wan Mohd Amri Wan Mamat Ali
	ORGANIZATION	Universiti Sains Malaysia
	TITLE OF INVENTION	A Novel Hybrid Piezoelectric Actuator-based Active Suspended Handle for Power Tools
This suspended handle consists of both passive and active vibration control approaches where the system can react within the effective frequency range of isolation (250 - 450 Hz). In case of external disturbances, the active system is activated to counteract the disturbance using the adaptive PID controller. The passive system can reduce 80 % of the vibration transmissibility from the die grinder while the active system improved the vibration reduction up to 91 %. This result proved the applicability of the hybrid suspended handle to the die grinder and contributes in protecting the operator from the high level of vibration.		
MY-48	AUTHOR(S)	Assoc. Prof. Dr. Mohd Remy Rozainy Mohd Arif Zainol / Dr. Nurul Hana Hanif Abu Bakar / Mr. Muhammad Faiz Syazwan Bin Md Razif
	ORGANIZATION	Universiti Sains Malaysia
	TITLE OF INVENTION	NR-b-PVP Photo Dye
Effluent of wastewater from textile industries need to be treated before discharge into environment as this wastewater contains high toxicity which can lead to serious water pollution. Environmentally friendly, low cost dye wastewater treatment model have been produced in order to solve this issue. NR-b-PVP Photo Dye main component was the NR-b-PVP film which was prepared from blends of natural rubber latex with polyvinylpyrrolidone incorporated with silver particle. This film then was coated onto the surface of the glass to degrade methyl orange (MO) dye via photodegradation at neutral pH. The process of photodegradation was conducted under the sunlight for 2 hours and 2 mL of sample was taken to analyse the absorbance capacity at peak wavelength of MO, 463 nm, via UV-Vis Spectrophotometer for every 20 minutes. Based on the result, this product can decolourize 90% of 5 L of methyl orange solution in 2 hours.		
MY-49	AUTHOR(S)	Dr. Mohd Rosli Mohd Hasan / Prof Dr. Meor Othman Hamzah / Mr. Mohd Fouzi Ali / Mr. Zulhairi Arifin / Mr. Sharvin Poovaneshvaran
	ORGANIZATION	Universiti Sains Malaysia
	TITLE OF INVENTION	Accelerated Laboratory Vacuum Saturator (ALVS)
The accelerated laboratory vacuum saturator (ALVS) was developed to realistically simulate the combined destructive effects of water and temperature acting within the pores of an asphalt mixture. It was also designed to accelerate the conditioning process that caused moisture damage in any asphalt mixtures. Compared to the established international test method such as modified Lottman test, the ALVS can better predict field resistance to moisture susceptibility of pavements in the tropics. This is because the ALVS better simulates moisture damage mechanism for asphalt mixture under prevailing tropical monsoon climate.		
MY-50	AUTHOR(S)	Mohd Sharizal Abdul Aziz / Ahmad Fauzan Kadmin / Shamsul Fakhar Abd Gani / Khairul Azha bin A Aziz / Mohd Remi Rozainy Mohd Arif Zainol
	ORGANIZATION	Universiti Sains Malaysia
	TITLE OF INVENTION	Mobile Speech Controlled Power-Driven System for Manual Wheelchair (Magis)
The Magis system is designed to install in manual wheelchair and controls to navigate a wheelchair using multiple virtual controller such as D-pad, joystick and speech in smartphone wirelessly. The objective is to ease the burden for frequent wheelchair user especially for elderly people and stroke patient to move around. These navigation methods in smartphone is a key which may provide a new way of human interaction with machines or tools. The system navigates the wheelchair movement i.e. forward, backward, left, right and also facing the Kiblah.		

MY-51	AUTHOR(S)	Dr. Raah Khimi Shuib / Prof. Dr. Hanafi Ismail / Dr. Muhammad Khalil Abdullah
	ORGANIZATION	Universiti Sains Malaysia
	TITLE OF INVENTION	Magnetorheological Elastomer (MRE) Damper: An Innovative Vibration Absorber
MRE damper is an innovative vibration absorber that is engineered based on natural rubber and industrial heavy metal waste nickel zinc ferrite particles. The material is fabricated to contain chainlike structures of magnetic particles within the rubber matrix when a magnetic field is applied during curing; this provides much larger vibration absorption capability when compared with conventional vibration absorbers. MRE damper can be fabricated into a final solid form through conventional rubber processing equipment. This makes possible to immediately transfer the technology to industry rendering high added value products.		
MY-52	AUTHOR(S)	Dr. Raah Khimi Shuib
	ORGANIZATION	Universiti Sains Malaysia
	TITLE OF INVENTION	Room Temperature Self-healable Natural Rubber
Self-healing natural rubber engineered in this invention has the capability to repair itself and to recover functionality when it is damaged without the need for detection or repair by manual intervention of any kind. The self-healing natural rubber is developed using ready available industrial raw materials and can be processed using typical rubber processing equipment. This makes possible to immediately transfer the technology to industry rendering high added value products. Some of the potential products that could benefit from the advantages of this material are tires, industrial rubber goods, cables, hoses, belting, bearings, mounting and footwear.		
MY-53	AUTHOR(S)	Ong Paul Sherng
	ORGANIZATION	Chung Ling Private High School
	TITLE OF INVENTION	New Generation Mobility Support Device
New Generation Mobility Support Device is embedded with tri-axial accelerometer which has the capability of running a complex, specific fall detection algorithm in order to provide accurate fall detection. Combination of additional motion sensors, namely gyroscope and ultrasonic can further fine tune the classification of fall event. This fall mitigation system is crucial as falls are the second leading factor which causes of accidental injury deaths worldwide. Incorporating Global Positioning System into this device is beneficial to guardian if there is a need to know the map of suspected fall location, and to locate the Parkinson's or Alzheimer's patients, who experience the phenomenon of getting lost without knowing how to get home.		
MY-54	AUTHOR(S)	Ghazirah Mustapha / Mohd Firdaus Abdul Razak / Mohd Saiful Aizat Mohd Shafie / Mohd Salzahrin Mohd Hamzah / Jamaluddin Mahmud
	ORGANIZATION	Universiti Teknologi MARA / Universiti Sains Malaysia / Persatuan Seni Silat Cekak Malaysia
	TITLE OF INVENTION	Cekak Visual 3D (CV3D): Low Cost, Portable and Markerless Motion Analysis System
Motion analysis system, an efficient scientific feedback provider for researchers, coaches and athletes is considered a complex system as it normally consists of multiple cameras. The disadvantages are such system only available in special institution and are devoted for the expert used since the cost of ownership is too high. Hence, this project presents the development of a novel low cost motion analysis system, Cekak Visual 3D (CV3D) which is capable to track dual martial art practitioner's skeleton motion in a single frame view using integration of Matlab GUIs and Microsoft Kinect. The systems perform the tracking motion with a single Kinect (a combination of RGB and depth sensor) thus makes it capable in providing 3D coordinate data. This capability makes the systems suitable in providing quasi-training and natural setting environment for any martial arts biomechanics investigation. Therefore, we believe that the system provides new concept development for basic research in martial arts biomechanics.		
MY-55	AUTHOR(S)	ASMA' BINTI AHMAD / Khalid Khanfi / Muhammad Erhan Emir Khan Bin Harjar Mydin / Mezel Dalishah A/P Vasuthevan / Ooi Xin Rhu / Ch'ng Yi Jing / Siti Nur Eilyana Bt Hasnuddin / Dhanusha a/p Sundaramoorthi / Zulhanif Zulkifli / Mohd Nazreen
	ORGANIZATION	SMK ARAU, PERLIS INDERA KAYANGAN
	TITLE OF INVENTION	Arau Buddyz Team: CAT FOR Help Others
There is more to life than money. Parents nowadays are being sucked by a vortex called "work". Day and night, they work hard to support their family. These parents often lose track of time and forgot to live. Forgot about their families. It's true that it affects everyone. Even more so teenagers. Teenagers are at the peak of puberty and is experiencing hormonal changes. Teenagers are more prone to stress in this time of their life and is in need to a lot of attention. Because of the lack of a parental aura and care, these teenagers tend to become rebellious. Thus, through creative art therapy, we aim to decrease the rate of rebellious and stressed teenager. Art is an excellent medium in which someone can express their feelings because art is something open and there is no wrong answer. We can express whatever we want on an empty canvas.		
MY-56	AUTHOR(S)	Mohamad Azizan Omar / Laila Wahidah Mohamad Zailani / Nur Syahirah Mohd Amdan / Siti Nor Aishah Mohd Salleh / Nur Shaylinda Mohd Zin
	ORGANIZATION	University Tun Hussien Onn Malaysia (UTHM)
	TITLE OF INVENTION	Green PACTSEC
Landfill leachate is classified as the highly polluted liquid that is produced from infiltration of water through the municipal solid waste. GREEN PACTSEC is an abbreviation to resemble a green treatment, which combine both electrocoagulation and coagulation to treat landfill leachate. This invention investigates the effectiveness of new composite coagulant PACTS made from polyaluminium chloride (PAC) and tapioca starch (TS) in the removal of suspended solid (SS), colour, chemical oxygen demand (COD) from landfill leachate. From the result analysis, the highest removal percentage for SS, colour, and COD is obtained with 94%, 91%, and 87%, respectively.		

MEXICO

MX-01	AUTHOR(S)	Emmanuel Campos Genaro / José Israel Romero Flores / Thania Monserrat Montoya Olmedo / Leonardo Tonatiah González García / Luis Antonio Hernández Moha
	ORGANIZATION	General Systech / Instituto Politécnico Nacional (IPN)
	TITLE OF INVENTION	HARVESTT
<p>HARVESTT is an agrotechnological system, which implements innovations in cultivation techniques, integrating technological mechanisms that can increase the development and growth of plants, revolutionizing classical agronomy, this poses smart greenhouse and germinator that through certain humidity, temperature and photoperiod controls It serves to test, analyze and carry germination under optimal conditions. In addition to having specialized software for a deeper study, adding concepts of fuzzy logic for prediction and mathematical analysis for mass crops, such as allowing the development of plants in urban communities taking into consideration the precautions and recommendations that are indispensable in science of agronomy.</p>		

MOLDOVA

MD-01	AUTHOR(S)	Bologan Alexandru
	ORGANIZATION	IPLT, Literarium ONG. Junior Achievement Moldova
	TITLE OF INVENTION	PRO-Fire
<p>PRO-Fire is a dispenser that prevents any fire in the room or any areas, and not only has the purpose of removing the risks of suffering children and animals that are usually vulnerable. Pro-Fire acts working on sudden dangerous movements that produce a certain risk in the room, or areas. Certain start signals until an unpleasant incident begins. PRO- fire detection, signaling and warning system is a protective installation designed to detect and signal as soon as possible a fire start in protected areas as well as to alert personnel, and any other category of people in the area who can help to extinguish the fire and limit its effects. The detection system is made up of fire detection devices (manual trigger or automatic gas, smoke, heat, flame detector).</p>		

MD-02	AUTHOR(S)	Floresia Balaur
	ORGANIZATION	IPLT, Universul ONG. Junior Achievement Moldova
	TITLE OF INVENTION	Dress –Flower (5 in 1)
<p>The Dress –Flower (5 in 1) dress is detachable , transforms in a sports dress, evening dress, casual dress, all day dress, evening-dress. Women's clothing where the blouse and the skirt (from the same material and colour) form a single piece (5 in 1).</p>		

MD-03	AUTHOR(S)	Tanasachi Dorian / Tanasachi Adriana
	ORGANIZATION	College of excellence in transports, ONG. Junior Achievement Moldova
	TITLE OF INVENTION	Season-shoes (4-for)
<p>This is a pair of shoes for all 4 seasons. Full in one and includes additional parts that are attached depending of the season outside.</p>		

MD-04	AUTHOR(S)	Adela Juravliov / Naomi Juravliov
	ORGANIZATION	IPLT, Natalia Dadiani, ONG. Junior Achievement Moldova
	TITLE OF INVENTION	Depo-Coat
<p>Depo-Coat is a short suitcase that stores the clothes in the walls of inner docket of the short, being covered. Person do not realize that in the back take your clothes without being siphoned. Depo-Coat is convenient, useful and original.</p>		

MD-05	AUTHOR(S)	Scortescu Marius-Silviu / Ciobotaru Anisia
	ORGANIZATION	IPLT, Universul, ONG. Junior Achievement Moldova
	TITLE OF INVENTION	Solar-Box
<p>Solar-box is a decorative light-box that loads from the sun. This is a hand-made solar –box this illuminates the room at night. Inside of solar-box is a led and solar battery, outside of solar-box is painting Moldovan ornament Routes of Moldova. Box are made of Moldovan wood.</p>		

MD-06	AUTHOR(S)	Serdasciuc Igor
	ORGANIZATION	IPLT, Ginta Latina, ONG. Junior Achievement Moldova
	TITLE OF INVENTION	ITS,, Smart Shower
<p>The mechanism separates the water containing impurities will be used in the toilet, and clean one be reused for users' needs. ITS Smart Shower reused shower water after clean this water from soap, detergents, and reused.</p>		

MONGOLIA

MN-01	AUTHOR(S)	Myagmarsuren Tsanjid / Enkhtsetseg Gayabazar / Urantogos Majigsuren / Enkhdelger Gayabazar / Narantuya Lkhamii
	ORGANIZATION	Uran Gar Urlal NGO
	TITLE OF INVENTION	Felt / Wool / Leather / Cashmere / Accessories / Macrame and clothes
<p>Macrame knot is creative inspiration for us. Our products are made by 100% raw materials and from textile making using knotting rather than weaving or knitting. Macrame belt and hand bag. Cashmere / wool clothes / felt product.</p>		

MOROCCO

MA-01	AUTHOR(S)	Majid EL BOUAZZAOU
	ORGANIZATION	OFEED
	TITLE OF INVENTION	Intelligent device for automatically changing the orientation of a photovoltaic panel
Generally, a great consumption of water and fuel (for the transport of this water) is required to clean the solar panels in solar plants. And therefore, the use of precious water reserves and air pollution. The object of the present invention is to propose a device for automatically and regularly removing dust or sand particles which may accumulate on the surface of a photovoltaic panel in order to ensure maximum long-term performance, while Avoiding the use of precious reserves of water and air pollution.		

NEW ZEALAND

NZ-01	AUTHOR(S)	Jonathan P. Olds / Winston K.G. Seah / Ramesh Rayudu
	ORGANIZATION	Victoria University of Wellington
	TITLE OF INVENTION	AccuMM – Accurate to the MilliMetre
Knowing where and when a landslide will occur is currently more of an art than a science. We use low-cost solar-/battery-powered wireless GPS-based sensors, together with our specialized, cloud-based algorithm to calculate the location of each sensor, relative to a fixed-based station. Costing less than 5% of existing solutions, yet providing sub-centimetre accuracy, our system can be deployed in-situ for long-term continuous landslide movement monitoring. This enables more points on a landslide to be monitored continuously without the need for site visits nor intervention for five years or more, giving geotechnical engineers' data to help them in landslide risk assessment.		

PHILIPPINES

PH-01	AUTHOR(S)	John Luis L. Tolentino
	ORGANIZATION	Ramon Magsaysay High School-Manila / Manila Young Inventors Association
	TITLE OF INVENTION	UltraBECT
UltraBECT is a multi-purpose Buoyancy Emergency Compensator for typhoon with re-used PET bottles. This invention is a multi-purpose emergency life vest that ensures buoyancy, which avoids drowning in case of emergency by high floods due to heavy typhoons, with a waterproof flashlight, whistle, reflective material, a small medical kit and a small series of pocket for compass, etc.		

PH-02	AUTHOR(S)	BRYNE ALRIC L. YU / JOSEPH KARL C. SALVA JR. / ELIJAH JOSEPH A. CONSING / BENITO A. BAJE
	ORGANIZATION	PHILIPPINE SCIENCE HIGH SCHOOL- CENTRAL VISAYAS CAMPUS
	TITLE OF INVENTION	A Novel Radiation Shield using <i>Nemipterus isacanthus</i> (Lagaw) Fish Scales
This innovation provides a method of preparing <i>Nemipterus isacanthus</i> fish scales as a component for radiation shielding against gamma rays. Dried fish scales were pelletized. Samples were exposed to Cesium-137 and Americium-241 source. Linear attenuation coefficient (μ) and half value layer (HVL) were determined. Scanning Electron Microscopy – Energy Dispersive X-ray (SEM-EDX) spectroscopy was used to analyze the morphology and elemental compositions. Data showed that the shielding ability of <i>N. isacanthus</i> scales increases with increasing thickness. SEM-EDX confirmed a Calcium-deficient Hydroxyapatite scales. Results revealed that low-atomic composition <i>N. isacanthus</i> scales successfully shielded radiation, and could be used for building construction in mitigating radiation.		

PH-03	AUTHOR(S)	GREGORY WILLIAM JOSEPH D. LIU / MIKE WENMAR Y. PAYO / BRYNE ALRIC L. YU / BENITO B. BAJE
	ORGANIZATION	PHILIPPINE SCIENCE HIGH SCHOOL- CENTRAL VISAYAS CAMPUS
	TITLE OF INVENTION	LexAid: A Reading Tool for the People
Reading and communication are vital to learning. This innovation provides a means of aiding individuals with difficulties performing these activities. Dyslexia and extreme visual impairments can inhibit an individual's ability to read. The innovation photographs pieces of text from books or journals and plays it out loud for the user to hear. The extracted text can also be saved to an external flash drive. The innovation can also recognize hand gestures in the form of sign language and convert it to digital text, which can be saved to a flash drive to aid those that have difficulty using traditional input methods like keyboards due to visual or reading impairments. Furthermore, this can help break down barriers by providing a bridge through which those reliant on sign language can communicate with people who are not familiar with it.		

PH-04	AUTHOR(S)	NESTOR B. SIENES / JAZEL C. PACO / RALPH MANUEL E. ROSILLA / IRON D. FAJARDO / JOSHUA ABARRO
	ORGANIZATION	COLEGIO DE SAN JUAN DE LETRAN CALAMBA
	TITLE OF INVENTION	AQUATIC Z.O Oil Skimming Robot
Aquatic Zero Oil Skimmer Robot (Aqua Z.O) is a prototype autonomous robot designed to address environmental problem during oil spill. The prototype continuously remove oil from the surface of the water using a closed-loop Polymer Belt that rotates vertically on the surface-bottom of the water, attracting the floating oil or grease which is continuously driven across the separator's surface and through a set of scrapers that remove the oil, which is then drained into a collection tank. The objectives of the project were: (1) to apply learned knowledge in developing new robotics technology that can address the impact of oil spill, (2) to create effective and efficient tool that can sustain economic potential of the skimmed oil, (3) to actively involved in promoting awareness among young people the importance of water and its resources, and (4) to become role model among younger learners to develop their potential and creative skills in science endeavor.		

PH-05	AUTHOR(S)	Balce, Marc Angelo Aquino / Dimaala, Charlie Chris Alicoy / Serrano, Kristine Courtney Carranza
ORGANIZATION	Philippine Science High School-Bicol Region Campus	
TITLE OF INVENTION	Artificial Coral Nursery Security System	
Coral poaching causes serious ecological harm, contributing to the depletion of local fish stocks and destruction of marine habitats. Coral harvesting and collection of endangered or legally protected marine species still remain to be the primary concerns of environment groups despite having laws that prohibit any corporation to gather these precious corals. To address the problem, the researchers designed a cheap and reliable artificial coral nursery made from recyclable materials with a built-in security system that senses a disturbance when detected to inform and alarm the authorities about the occurrence through SMS.		

PH-06	AUTHOR(S)	Ma. Chat Donna V. Ofilas / Chem Beaver P. Valenzuela / James Benedict G. Cuesta / Erlinda H. Tabora / Kim Alexandra B. Mojica
ORGANIZATION	Ramon Magsaysay High School-Manila / Manila Young Inventors Association	
TITLE OF INVENTION	PremCo-Med	
PremCo-Med is a first-Aid type bandage with alagaw water-based extract and alginate. It is a combination water-based extract of Alagaw and Alginate as an addition to the gauze applied to the injured skin in a First-aid dressing for wounds that aids healing process. This also resides in the elimination of the intermediate step of applying a liquid medicant to the injury and possibility that the medicinal will be lost by run-on or leakage. PremCo-Med is an innovative wound dressing for exuding wounds that develops an effective alternative to band aids with comparable healing properties made up of Alagaw extract and alginate which speeds up the healing process of the wounds.		

PH-07	AUTHOR(S)	Mellen May M. Dizon / Christine Marie V. Sanchez / Analyn N. Tolentino
ORGANIZATION	President Sergio Osmeña High School / Manila Young Inventors Association	
TITLE OF INVENTION	Tyla Paper Bag	
Tyla Paper Bag is handmade commercial paper bag from Typha latifolia fibers. The leaves of the plant underwent has undergone manual process of fiber extraction and paper bag production. The end product was cut to achieve the desired shape of a commercially-used paper bag and was made to undergo a folding endurance test. Compare to the old corrugated carton, the Tyla Paper Bag is better in terms of Basic weight which is 113.17 g/m2, 0.260 thick, has a burst index of 4.31 kPam2/g and 67.43 folding endurance. The findings proved the inventors' hypothesis that hotdog plant fibers could be a good pulp in making handmade commercial paper bag.		

PH-08	AUTHOR(S)	Elaine M. Sansait / Rubie S. Dasmarinas / Krishel S. Aquino / Dhalla S.Toyco / Cedrich Ysidore A. Laurentio
ORGANIZATION	President Sergio Osmeña High School / Manila Young Inventors Association	
TITLE OF INVENTION	CAUSAL EFFECT OF PROTEINACEOUS PROTEASE AND ALKALOIDS OF D. HISPIDA(Baay/Yam) : A Potential Medicinal Additive – Key Component to End Alzheimer's (A Neuro degenerative disease)	
Dioscorea hispida (D. hispida,) a member of Dioscoreaceae family, is commonly known as Asiatic bitter yam or Intoxicating yam –a tuberous crop and is a staple food rich in protein, starch and amino acids. Also rich in alkaloids thus possessing toxin but it is still eaten by all natives in African and Asian countries after subjecting them in processes like washing in running water, soaking in a drum with salt for days and many other options. D. hispida is also used as by natives as supplemental medicine as anthelmintic, anti-inflammatory, analgesic, antioxidant, anti-infectious, hemostatic, etc. Considering its richness in protein and alkaloids the researchers made use the primary studies result of plant/tubers as the opportunity to further see its potency for drugs as an additive in developing drug for Alzheimer's (a neuro degenerative disease) using the correct usage of the amount of alkaloids and protein (proteinaceous protease).		

PH-09	AUTHOR(S)	Sophia Celine B. Julian / Patricia Sofia M. Lee / Rachel Ruth Nicolabo / Lord William D.S. Pineda / Jaime Vicente T. Sanchez
ORGANIZATION	Rizal National Science High School	
TITLE OF INVENTION	Portable Healthcare Monitoring System	
The emergency department (ED) is a health care setting where patients receive care for a variety of circumstances, including life-threatening emergencies, acute illnesses and injuries, and complications associated with chronic conditions. Globally, ED is one of the most overcrowded units in a hospital with 136.3 million visits in United States alone (Alavi-Moghaddam, 2012). In order to address this problem, the use of portable medical devices in hospitals and emergency response units arises. The Portable Healthcare Monitoring System measures various medical statuses of a person including electrocardiogram signal, electromyography signal, body temperature, airflow, blood pressure, pulse rate and oxygen level, and galvanic skin response. Results showed that there is insignificant difference between the device and the standard hospital procedures.		

POLAND

PL-01	AUTHOR(S)	Marcin Kremieniewski / Marcin Rzepka / Ewa Kątna
ORGANIZATION	OIL AND GAS INSTITUTE – National Research Institute	
TITLE OF INVENTION	Composition of a non-fractionating cement slurry	
Composition of a non-fractionating cement slurry is a characteristic structure of the cement slurry, containing additives with various densities in its composition, the fractions not undergoing a movement towards bottom sections under the influence of gravity after their homogenisation with batched water. Grains of the additives and admixtures present in the composition of the non-fractionating cement slurry are maintained in the whole volume of the sealing liquid, the so-called cement slurry, which does not exhibit grain segregation. The produced composition of the cement slurry exhibits a sedimentational stability necessary while sealing holes significantly deviated from the vertical (directional and horizontal holes).		

PL-02	AUTHOR(S)	Sławomir Szufliła / Jerzy Kuśnierczyk / Stanisław Biały
ORGANIZATION		OIL AND GAS INSTITUTE – National Research Institute
TITLE OF INVENTION		Method for determination of the wax appearance temperature in crude oil
Deposition of paraffin from deposit fluids, particularly paraffin oil, is often the reason for stoppage in oil and gas production. In determination of methods preventing deposition of paraffin from deposit fluids during exploitation, it is essential to determine conditions for Wax Appearance Temperature – WAT. It is critical to know the temperature of starting point of paraffin formation to determine optimal method for its prevention in ambient conditions and avoid blocking the flow of deposit material. Subject matter of the invention is a method for determining WAT in crude oil, including impact of pressure and gas dissolved in examined oil sample.		

PL-03	AUTHOR(S)	Barbara Gaździk / Beata Altkorn / Stefan Ptak / Kamil Pomykała / Michał Pajda
ORGANIZATION		OIL AND GAS INSTITUTE – National Research Institute
TITLE OF INVENTION		Corrosion inhibitor for hydrocarbon streams
The present invention relates to a corrosion inhibitor for protection of Crude oil Distillation Unit. Dosing to the vapor pipes and reflux of distillation columns prevents uniform, pitting, intercrystalline corrosion, steel blistering and hydrogen embrittlement of steel caused by the action of HCl, H ₂ SO ₃ , H ₂ SO ₄ , H ₂ CO ₃ , naphthenic acids, H ₂ S, HCN, CO ₂ , O ₂ . The invention perfectly protects against corrosion of carbon steels even at low dosages of 5-15 mg/liter per gasoline. It perfectly counteracts the formation of hydrocarbon emulsions with steam. Raw gasoline collected is a transparent liquid, without water. The water condensate from the clarifier has the low COD.		

PL-04	AUTHOR(S)	Grażyna Żak / Michał Wojtasik / Leszek Ziemiański / Celina Bujas / Jarosław Markowski
ORGANIZATION		OIL AND GAS INSTITUTE – National Research Institute
TITLE OF INVENTION		Multi-functional diesel fuel additive package, containing alkenyl succinimide-amides with controlled content of imide and amide groups
Multifunctional diesel fuel additive package contains an active substance with detergent-dispersant properties, at least demulsifier, antifoam agent, solvent and further optionally at least one component such as cetane number improver, oxidation inhibitor, metal deactivator, corrosion inhibitor, biocide and marker soluble in fuel. Detergent-dispersant is the alkenyl succinimide-amide, wherein the final product is subjected to the thermal conditioning, until the integration of the proton signals in the 1H-NMR spectrum in the range of 3.0 - 4.0 ppm to the signals in the range 4.4 - 5.6 ppm will be preferably from 2.5 to 3.0.		

PL-05	AUTHOR(S)	dr hab. inż. Zbigniew Mikołajczyk, prof. PŁ / dr inż. Witold Sujka /mgr. inż. Małgorzata Chmielewska / dr inż. Katarzyna Piekłak
ORGANIZATION		Lodz University of Technology
TITLE OF INVENTION		An innovative medical device for use in urology with a clamping system
The Department of Knitting Technology and Textile Machinery of Lodz University of Technology and TRICOMED S.A. worked out a medical implant in the form of an ultralight urological tape, used in the treatment of stress urinary incontinence in women. The tape is designed to replace the damaged structures of the pubo-urethral ligaments. The product is equipped with holders, which facilitates its fastening. The knitted urological tape is characterized by low surface density 35g/m ² , stable knitted structure, high elasticity, high biostability, lack of irritating and allergenic effects, non-toxicity, cytotoxicity and genotoxicity. The Polish company Tricomed S.A. has started industrial production of the above-mentioned implants according to the developed technology. They created the Dallop® UL ULTRALIGHT product line that is already used in hospital treatment in Poland and abroad.		

PL-06	AUTHOR(S)	ARTUR GONSIOR / PIOTR BUJNA / RADOSŁAW MATUSZCZYK / TOMASZ MACIEJCZYK / MARCIN PUC / ALICJA LUCZAK / BARTOSZ GLAZ / ARKADIUSZ ROSZAK / MATEUSZ GRUSZCZYK / SZYMON WOJAKOWSKI / KRZYSZTOF OLSZOK / JAKUB ZUR
ORGANIZATION		THE JOHN III SOBIESKI SECONDARY SCHOOL NO 6 IN JASTRZEBIE-ZDROJ
TITLE OF INVENTION		EduChemLab – the innovative educational platform in chemistry for high school students
EduChemLab is an innovative educational platform in chemistry for students. It will contain a chemical laboratory simulator, interactive tasks and videos. The educational films are going to be make in 360 degree spherical technology with the ability to create them on virtual reality goggles. The platform was created using web technologies such as: HTML, SASS, JS, PHP, SQL. In the near future, we intend to rewrite the entire system and recreate it using the latest web technologies, such as: Angular JS, Express, Mongo DB, Node JS, SASS.		

PL-07	AUTHOR(S)	PATRYK ZIELONKA / DANIEL WARLOCH / JAN HADALSKI / KRZYSZTOF SMYCZEK / ARTUR HAUSMAN
ORGANIZATION		THE JOHN III SOBIESKI SECONDARY SCHOOL NO 6 IN JASTRZEBIE-ZDROJ / PRACTICAL CENTRE IN JASTRZEBIE-ZDROJ
TITLE OF INVENTION		CBS – CARE BLINDING SYSTEM
CBS is a device that is supposed to provide support for blind and visually impaired people in everyday life by detecting obstacles in the way of the user. Thanks to this, it avoids dangerous accidents, such as ankle sprains or other damage to health. Another important function is the detection of animal manure, which a blind person can enter by accident.		

PL-08	AUTHOR(S)	Mikołaj Woźniak / Julia Dominiak / Michał Pieprzowski / Krzysztof Grudzień / Andrzej Romanowski / Dominik Sankowski
	ORGANIZATION	Lodz University of Technology
	TITLE OF INVENTION	SwingMate – Automated Interactive Golf Coach
Proposed system is a technological modification of a standard driving range mat and is dedicated to amateur golfers. Our invention facilitates training routines through providing feedback on players' performance. SwingMate monitors users' activity and examines: swing speed, impact angle and feet balance. Thanks to clear and instantaneous feedback, player can react on the go. Using this approach the need for constant supervision is significantly reduced. The system is co-created by professional players and coaches to provide the best possible results.		

PL-09	AUTHOR(S)	Izabela Witońska / Beata Kolesińska / Zbigniew Kamiński / Stanisław Karski / Piotr Dziugan
	ORGANIZATION	Lodz University of Technology
	TITLE OF INVENTION	Catalytic method of fuel biocomponent producing from bioethanol
Continuous catalytic coupling of crude distillates or rectified bioethanol into butanol and other fuel bicomponents was considered. Processes conducted using solid catalysts in a flow reactor under supercritical conditions yielded almost 13% (v/v) butanol after a single passage of the raw spirit at 330 oC, 120 atm. The use of a two-zone reactor (I. 8%Ni/Al ₂ O ₃ ; II. 5%Pd-8%Fe/Al ₂ O ₃) allowed the system to operate under 80 atm and temperature 290 oC conditions, while maintaining approximately 13% (v/v) of the butanol. The results suggest the possibility of using continuous-flow technologies for the industrial-scale catalytic condensation of bioethanol into butanol and higher homologues.		

PL-10	AUTHOR(S)	Zbigniew Schmidt / Andrzej Witt
	ORGANIZATION	"POLTEGOR – INSTYTUT" INSTYTUT GÓRNICTWA ODKRYWKOWEGO
	TITLE OF INVENTION	Device homogenizing granular composition of material in heaps
The invention provides a device for homogenization of granulometric composition of granular material, converging dispersed granular material falling from the return drum of a belt conveyor into streams containing the whole grain size range and directing them vertically into selected locations of the heap. Dispersed stream of material with diverse falling routes of various size grains is formed in chambers into streams of material with homogenous grain size composition, corresponding with material carried on the belt conveyor. Granular material with homogenous grain size composition formed in chambers is directed by chute assemblies from chambers into selected location of a heap, in vertical streams, via discharge gaps created by converging guides.		

PL-11	AUTHOR(S)	Jarosław Kaszewski / Bartłomiej S. Witkowski / Marek Godlewski / Jarosław Olszewski / Łukasz Kiraga / Paula Kielbik / Michał M. Godlewski
	ORGANIZATION	Institute of Physics Polish Academy of Sciences (IPAN) / Warsaw University of Life Sciences (SGGW)
	TITLE OF INVENTION	New generation of wide band-gap oxide nanoparticle carriers for MRI imaging of tumours
We developed a new generation of MRI markers for early detection of tumours. The developed markers are based on nanoparticles of wide band gap oxides activated with magnetic ions (Eu, Fe) allowing MRI imaging. Such particles can penetrate into tumours allowing constant increase and cancer early detection.		

PL-12	AUTHOR(S)	Jarosław Kaszewski / Marek Godlewski / Paula Kielbik / Waldemar Lipiński / Michał M. Godlewski
	ORGANIZATION	Institute of Physics Polish Academy of Sciences (IPAN) / Warsaw University of Life Sciences (SGGW)
	TITLE OF INVENTION	New generation of biodegradable nanoparticle carriers for effective brain transfer of drugs and bioactive compounds for anti-tumour therapy and adjuvant therapy for neurodegenerative diseases
We developed a new generation of bimodal (fluorescence and MRI) markers for early detection of tumours. The developed markers are based on nanoparticles of bio compatible wide band gap oxides activated with rare earth ions for a specific light emission. Such particles can penetrate different barriers in living organisms, including blood-brain barrier. Recently we demonstrated that after markers modification they can also be used for transport of given medicines directly to brain area increasing efficiency of therapy.		

PL-13	AUTHOR(S)	Joanna Feder-Kubis / Jolanta Bryjak / Zofia Hrydziuszko / Urszula Świerczek
	ORGANIZATION	Wrocław University of Science and Technology, Faculty of Chemistry
	TITLE OF INVENTION	Multifunctionality of new surface active compounds with natural components applied in enzymology and microbiology
The subject of the invention are new surface active compounds with two natural occurring components which can be used successfully in enzymology and microbiology. The basic markets for the use of the products is the biotechnology sector. Obtained salts, according to the invention, exhibit biological multifunctionality and have been used in enzymatic systems as activity enhancers and/or stabilizers of enzymes. Moreover, presented compounds might be successfully applied as disinfectants. The biological multifunctional of salicylic acid derivatives makes them effective additives to long-term biotransformations due to reduced microbial contamination, responsible for side reactions such as: biocatalysts deactivation or product transformations.		

QATAR

QA-01	AUTHOR(S)	Prof. Dr. Muhammad Abdul Aziz Al Baker
	ORGANIZATION	Inventarium Science
	TITLE OF INVENTION	Al Quds watch For Peace
The luxury watch for peace. It collects between Islam, Christianity and Judaism. The first technology in the world which leads to watch damage in case. It is being opened except our company for quality reasons. New technology which don't allow any scanning system to view what is inside it. The watch battery can be charged once every 20 years for 10 minutes with special charger. Indicators for phone calls, mails and messages since it is connected directly to the phone by Bluetooth. Fasting time Indicator for Muslim, Christians and Jewish.		

RUSSIA

RU-01	AUTHOR(S)	Anisimovich Polina / Pochinok Tatiana / Temerdashev Zauul / Tokareva Elena
ORGANIZATION		Federal state budget educational institution of higher education «Kuban State University»
TITLE OF INVENTION		Spectrophotometric determination of protein in biological fluids by reaction with bromopyrogallol red
A new organic reagent, bromopyrogallol red, possessing equal sensitivity to different protein fractions (albumins and globulins) and ensuring a minimum error of the determination of total protein in clinical examinations using calibration solutions of various compositions is proposed. It is proposed to mix a sample of biological fluid with the reagent solution, and the retention of the total protein in a real sample is determined by the calibration schedule, taking into account the dilution. A procedure for the determination of total protein in biological fluids is developed and tested on real samples of urine and blood serum.		

RU-02	AUTHOR(S)	Mammaev Suleiman Nurattinovich / Gamidova Saida Gasanovna
ORGANIZATION	Dagestan State Medical University	
TITLE OF INVENTION	The method of correction of anxiety-depressive disorders in patients with systemic connective tissue diseases	
The invention relates to medicine, namely to internal diseases and can be used in psychiatry in the treatment of anxiety-depressive disorders. The aim of the invention is to increase the effectiveness of treatment of patients with systemic connective tissue diseases. A study of psycho-emotional status using the Beck scale is conducted, which is a questionnaire that includes 21 categories of symptoms and complaints. The data obtained with the help of this study are necessary for the correction of anxiety-depressive disorders. For the correction, traditional therapy of systemic connective tissue diseases is performed and additionally an orally selective serotonin reuptake inhibitor (SSRI) of paroxetine is administered. The novelty of the proposed method is that this drug was not used to correct anxiety-depressive disorders in patients with systemic connective tissue diseases. Thus, the use of paroxetine in the complex therapy of systemic connective tissue diseases has made it possible to reduce anxiety and depression in a shorter time. This is accompanied by an improvement in mood, normalization of sleep, increased efficiency and quality of life of the patient. The proposed method improves the clinical state of patients with systemic connective tissue diseases (NCD) complicated by anxiety-depressive disorders, both by reducing depressive symptoms, and by increasing adherence to treatment. It showed that the administration of paroxetine led to an improvement in the course of NWST and the quality of life (QOL) in the patients examined.		

ROMANIA

RO-01	AUTHOR(S)	MARIN LAURENTIU / Marin Catalina / Prof. Dr. Patriche Neculai / Dr. Talpes Marilena / Dr. Simion Nicolaev
	ORGANIZATION	National Institute for Research and Development in Chemistry and Petrochemistry – ICECHIM Bucharest
	TITLE OF INVENTION	Polymer composition with antifouling properties and its process of obtaining
The invention relates to the obtaining of a hydrocarbon chain with polyurethane structure on which triphenylboron nuclei were grafted. Thus the catena acquires intrinsic antifouling properties, which reduces the proportion of toxic antifouling elements in the formulation by 50%.		

RO-02	AUTHOR(S)	Emanuel Vamanu / Sărbu Ionela / Pop Octavian / Pop Erdelyi Andrea / Ene Mihaela
ORGANIZATION	University of Agronomic Science and Veterinary Medicine	
TITLE OF INVENTION	RoBioMush - Bioactive product from edible wild mushrooms for improving colon microbial fingerprint	
The invention concerns a bioactive product used in nutritional and cardiovascular pathologies, in order to improve the colon microbial fingerprint. According to the invention, RoBioMush product consists of an atomized fungal extract of the mushrooms species <i>Boletus</i> sp., <i>Pleurotus eryngii</i> , <i>Armillana mellea</i> and <i>Tuber melanosporum</i> , in a ratio of 30:7:2:1 and 7% maltodextrin. The product has a phenolic compound content of 7.8 mg/mL gallic acid equivalents and a total antioxidant activity of over 90%. RoBioMush follows the correction of microbial disorders (microbial fingerprint), an effect associated with nutritional pathologies (e.g. diabetes type 2) and cardiovascular diseases. Once administered, an increase in the antioxidant capacity of the colon is also obtained due to its composition in bioactive compounds, in order to combat the effects caused by the oxidative stress.		

RO-03	AUTHOR(S)	DAVIȚOIU Dragoș-Virgil / DOICIN Cristian-Vasile / COSTOIU Mihnea-Cosmin / ULMEANU Mihaela-Elena / SEMENESCU Augustin Ene Mihaela
ORGANIZATION		University POLITEHNICA of Bucharest
TITLE OF INVENTION		ANOSCOPE WITH ADJUSTABLE OPERATIVE FIELD
The invention relates to an anoscope with adjustable operative field used for performing anorectal surgery. The anoscope with adjustable operative field consists of a lower cover, a top cover, an intermediary translational flange, three movable tabs, and three locking screws. The anoscope can be adjusted according to the patient's anatomy with incremental angular steps providing a variable surface of the operative field by adjusting the working diameter. The anoscope can be fixed in nine default intermediary positions and can be operated by one person, due to its innovative operating system and its ergonomic and light weight shape.		

RO-04	AUTHOR(S)	ANTONIA Vasile Iulian / MOHAN Aurel / SEMENESCU Augustin / DOICIN Vasile Cristian / ULMEANU Mihaela Elena / CAVALU Simona / COSTOIU Mihnea Cosmin / MURZAC Roman / DOICIN Irina-Elena / SĂCELEANU Vicențiu / MATEȘ Ileana Mariana
ORGANIZATION	University POLITEHNICA of Bucharest	
TITLE OF INVENTION	CRANIAL IMPLANT WITH OSTEOINTEGRATING STRUCTURES AND FUNCTIONAL COATINGS	
The invention relates to the structure and fastening method of a mesh implant with functional coatings having the role of osteointegration, used for cranioplasties/reconfigurations of major cranial defects. The implant made of pure Ti or a biocompatible Ti alloy with osteointegration structures, consists of two layers, one fixed and the other movable, interconverted so that translations in two perpendicular directions can be made while maintaining the fixed layer. The cells of the two layers are arranged in two directions whose intersection at any point forms a specific angle α .		

RO-05	AUTHOR(S)	DEMETRIAN Alin-Dragoş / SEMENESCU Augustin / CHIVU Oana-Roxana / COSTOIU Mihnea Cosmin / DEMETRIAN Camelia / MATEŞ Ileana Mariana / DUMITRESCU Silviu
ORGANIZATION		University POLITEHNICA of Bucharest
TITLE OF INVENTION		ESO-TRAHEOSCOPE
The invention relates to a combined instrument (eso-tracheoscope) for simultaneously approaching the two tubular organs located in the mediastinum (trachea and esophagus), allowing simultaneous and coordinated maneuvers on the wall that separates them. The eso-tracheoscope, consisting of two cylindrical bodies which are articulated between them either from the beginning or after the successive introduction into the trachea, respectively into the esophagus, solves this technical problem, because each body has a slit or window (facing each other) of sufficient size to allow therapeutic maneuvers directed to the common esotracheal wall with long instruments, inserted through the two working channels.		
RO-06	AUTHOR(S)	AMZA Catalin Gheorghe / CICIC Dumitru Titi / POPESCU Diana / AMZA Gheorghe / SEMENESCU Augustin
ORGANIZATION		University POLITEHNICA of Bucharest
TITLE OF INVENTION		INSTALLATION FOR EVALUATING QUALITY OF INDUSTRIAL PRODUCTS
The invention refers to an automatic quality assessment installation of industrial products intended for the non-destructive inspection of products resulting from industrial processes, direct on the manufacturing line, with different degrees of rejection of non-compliant products. The invention solves system consisting of an automatic device for handling, displacement and rotation for the examined product, penetrating radiation examination equipment, an automatic radiographic image acquisition system and transmission to a computing unit, which in turn is comprised of an image processing module, a feature extraction module, a high level detection module, a main conveyor belt, two conveyor belts for driving the non-compliant products, one of which is for the driving of the irrecoverable product, two limiters for stopping the product and two pneumatic pushers for guiding the non-compliant product.		
RO-07	AUTHOR(S)	Niculescu Marius / Antoniac Vasile-Iulian / Semenescu Augustin / Doicin Cristian-Vasile / Ulmeanu Mihaela-Elena / Costoiu Mihnea Cosmin / Murzac Roman / Mateş Ileana / Daviţoiu Dragoş-Virgil
ORGANIZATION		University POLITEHNICA of Bucharest
TITLE OF INVENTION		ACETABULAR MILLING DEVICE
The invention relates to an acetabular milling device used in hip joint reconstruction surgery. The acetabular milling device is made up of a cylindrical front cutter assembled with a quick-change bush and a central rod. The device allows a movement on the rods' axis direction of the milling body, limited to the distance defined by the height of the osteophyte acetabular formations. The geometry of the active edges ensures the controlled direction of the bone chips within the collecting cup through the milling tooth profile, the angle of alignment (α) is greater than the clearance (γ).		
RO-08	AUTHOR(S)	DOICIN Cristian Vasile / ULMEANU Mihaela Elena / ANTONIAC Vasile Iulian / SEMENESCU Augustin / COSTOIU Mihnea Cosmin / MITRICĂ Marian / MURZAC Roman / CHIRTEŞ Alin / DAVIŢOIU Dragoş-Virgil / DOICIN Irina Elena / MATEŞ Ileana Mariana
ORGANIZATION		University POLITEHNICA of Bucharest
TITLE OF INVENTION		CRANIAL ENDOPROTHESIS WITH A SLIDING SYSTEM
The invention relates to cranial endoprosthesis with a sliding system, used to repair the traumatic defects of the skull, by the surgical procedure of cranioplasty. The cranial endoprosthesis consists of a superior sliding layer, a lower sliding layer and a fastening system, and the sliding layers are made up of mobile cells with sliding system. For assembling, the lower sliding layer is positioned in a non-sliding state, a tangent to the lower surface of the skull, and for actuating and sliding the movable cells of the lower layer, an actuator key is required.		
RO-09	AUTHOR(S)	Mircea MANOLESCU
ORGANIZATION		Arexman Construct SRL
TITLE OF INVENTION		REGENESYS – earthquake protection and health regeneration personal shelter
REGENESYS is an individual shelter capable to protect and sustain user's life in case of earthquake and to regenerate user's health in all the other cases. The shell has anti-blast and bulletproof properties, making this shelter able to protect the user in case of war and terrorist attack. REGENESYS is able to improve user's health by offering shelter against the electromagnetic smog and discharge of the negative potential of the body to the ground. It is also able to help the user to regenerate the immunity system and cure a range of health problems using specific external palliatives issued from new alternative medicine research.		
RO-10	AUTHOR(S)	Kamel EARAR / Andrei Victor SANDU / Ion SANDU / Madalina MATEI
ORGANIZATION		Romanian Inventors Forum
TITLE OF INVENTION		ECOLOGICAL TOOTHPASTE
The inventions refers to an ecological toothpaste made of powders of egg shell, rice, aromatic plants (mint, rosemary etc), cardamom seeds, calcium hydrocarbonate and sea salt, mixed with mint oil, juice of pineapple and grenadine. The product has good stability and a very good taste, cleans well the teeth and mineralizes the enamel.		
RO-11	AUTHOR(S)	Mirabela Georgiana MINCIUNA / Petrica VIZUREANU / Andrei Victor SANDU / Mohd Mustafa Al Bakri ABDULLAH / Mohd Arif Anuar Mohd SALLEH
ORGANIZATION		Gheorghe Asachi Technical University of Iasi
TITLE OF INVENTION		A METHOD OF PRODUCING A BIOCOMPATIBLE COBALT-BASED ALLOY
A method of producing an alloy for dental prosthesis comprising 50-60% cobalt; 20-30% chromium; 4-10% silicon; 4-8% molybdenum; <4% nickel; <0.5% manganese; and <0.5% iron, the method comprising the steps of removing surface impurities from raw materials; dosing the a cobalt-based ingot and silicon according to the composition; loading the dosed materials in an electric arc furnace; creating an oxygen-depleted environment in the furnace.		

RO-12	AUTHOR(S)	Andrei Victor SANDU / BEJINARIU Costica / SANDU Ioan Gabriel / IONITA Iulian / SANDU Ion / VASILACHE Violeta
ORGANIZATION	Gheorghe Asachi Technical University of Iasi	
TITLE OF INVENTION	Procedure for anticorrosion phosphatation of iron objects	
The inventions refer to a procedure for anticorrosion phosphatation of iron objects, in order to obtain thin ceramic layers with uniform crystalline dendritic structures, compact and adherent to the substrate.		

RO-13	AUTHOR(S)	Laurentia Geanina TIRON (PINTILIE) / Stefan BALTA / Andrei Victor SANDU / Kamel EARAR / Ioan Gabriel SANDU / Iulian Gabriel BIRSAN / Ion SANDU
ORGANIZATION	Dunarea de Jos University of Galati	
TITLE OF INVENTION	Procedure for obtaining polymer membranes for water ultrafiltration	
The invention refers to a procedure of obtaining of polymer membranes used for water ultrafiltration, used as final step in the treatment for drinkable water, which have physical and microbiological charge at colloidal level.		

RO-14	AUTHOR(S)	Titu Aurel Mihail / Oprean Constantin / Cioară Silviu Constantin / Cioară Gheorghe Romeo / Durdun Emilia / Rachieru Nicoleta / Sabău Dan
ORGANIZATION		"Lucian Blaga" University of Sibiu
TITLE OF INVENTION		DEVICE FOR TURNING HEMISPHERICAL ENDS
The invention relates to a turning device for turning the ends of the hemispherical end pieces of the rod type, such as supporting rods of the head restraint in some cars. The device consists of a body in which there are radially fixed, tangentially to the work piece, by clamping by means of screws, two prismatic shaped turning tools, their conic front being sharpened by grinding, axially positioned by a screw so that the cutting edge of each turning tool to be placed in the median plane of the rod to be processed.		

SAUDI ARABIA

SA-01	AUTHOR(S)	Eman Abdulhamed Abdulqadir Nugali
ORGANIZATION	Science Research and Innovation Unit, King Abdulaziz University	
TITLE OF INVENTION	Gloves that Stops or Improve Chronic Hand Tremor	
More than 10,000,000 people are diagnosed with Essential Tremor every year in the United States. Essential Tremor: Parkinson and Cerebral Palsy are diseases of many others that cause a tremor in the limbs of the body due to a nerve problem. Hand tremor impacts the life of the patient harshly because it prevents him/her from proceeding in everyday life tasks like eating drinking and writing. The invention is all about gloves that convert hand tremor to electromagnetic field that neutralize the tremor's force which eventually will cause the hand to steady. The gloves will help the patient retain a normal life without any difficulties in whatever handy task the patient chooses to do from the simplest as buttoning the shirt and putting a key in a key lock to the hardest like putting a thread in a needle.		

SRI LANKA

LK-01	AUTHOR(S)	Wijayapala Welgama
ORGANIZATION	Sri Lanka Inventors Commission	
TITLE OF INVENTION	Environment Friendly Compact Florescent Lamp (EFCFL)	
Highly demanded CFL bulbs contains mercury which is extremely toxic. This neuro toxin is especially toxic to the brain, the nervous system and kidneys. In these circumstances, my proposed invention on CFL patent in Sri Lanka to avoid the above health hazard while fixing a plastic clear housing for the naked glass tube in order to avoid mercury leakage, wound or food at a breakage of glass of CFL. CFL is 80% energy saving, less heat generated and also, the inventor designed a special packing box in hard plastic air tight on order to preserve it until the recycling process.		

LK-02	AUTHOR(S)	Wijayapala Welgama
ORGANIZATION	Sri Lanka Inventors Commission	
TITLE OF INVENTION	End Of Bottle Kerosene Lamp	
In the world nearly 1.3 bn. people are lack of electricity. For lighting, they use Kerosene, candles or other un reliable sources. Bottle kerosene lamp emits very Toxic fumes which causes health issues. Nearly 1000 Ker/Lamps throw at least 5 tons of carbon to the environment, In this circumstances, my invention is a very simple lamp with a Crystal Reflector to get maximum efficiency in lighting in order to eliminate completely the Bottle Kerosene Lamp from the world. Inventor use a very simple 6V battery pack and a solar ray to recharge it. Zero maintenance for 24 months.		

LK-03	AUTHOR(S)	Wijayapala Welgama
ORGANIZATION	Sri Lanka Inventors Commission	
TITLE OF INVENTION	Water bottle filter for the School Children	
Proposed invention based on water purifying system especially for the third world and developing countries. There are nearly 2.3Bn people lack or unreachable for consuming water. They are used to drink any sort of water to quench their thirst which leads to health issues. This purifying system uses two methods. One is in carbon process and other is in “High tech cloth” to get highest quality achievement. It is not a conventional immovable home filter but, is simple to carry anywhere - any time of the day. It purifies at once about 250mg of H2O for the drinkable standard.		

LK-04	AUTHOR(S)	K.R.CHATHURA MADHUMAL
ORGANIZATION	T/KN/GANTHALAWA MAHA VDYALAYA	
TITLE OF INVENTION	WALKING CHARGER	
All living creatures these creatures use their legs for the most part. The gravitational force, which is massive, is a common thing in the world. This device can be used not only in walking, but also when sitting and standing. We know that in the future we will face a non-renewable energy crisis. This method can be used not only for mobile power generation from renewable sources but also for every electronic device we use every day.		

SUDAN

SD-01	AUTHOR(S)	ABDALBASIT IBRAHIM ADAM ABDALLA
ORGANIZATION	B. SMART CARE TECH (B.SCT)	
TITLE OF INVENTION	The Smart Care Stick for the Blinds (SCSB)	
This vital innovation is aimed to minimize the risk that faces the people with visual impairment, and mobile their way of interaction. It has being technologically challenging to invent a tool that helps the visually impaired; the tool should insure the measures of safety, reliability, quality, and cost effective. We looked at the core issues that face the visually impaired, considering all the parameters by careful study of the problems where there is a need for integrated solution. According to the tested case the cane is effective in solving the major problems that face the sight impaired people, in addition the consideration of its low environmental impacts and affordability.		

SD-02	AUTHOR(S)	MOHAMED ALMOTASIM ABDALLA ABDALLA / NIMAT IBRAHIM AWADALLA IBRAHIM / Abdalbasit Ibrahim Adam Abdalla
ORGANIZATION	University of Khartoum	
TITLE OF INVENTION	Phytochemical Screening, Antioxidant Activity, the Emulsification Stability And Minerals Content of <i>Acacia Albida</i> Fruit (Pods) in Darfur Area/Sudan	
On the early of summer season <i>Acacai Albida</i> Fruit (Pods) moisture content was 4.74%. Almost all the Phytochemicals were present in the Extract. Alkaloids, Amino acids, Carbohydrates, Cardiac glycosides, Diterpenes, Flavonoids, Phenolic compounds, Phlobatanin, Proteins, Steroid, Saponins and Tannins were found to be present but Oil & fats absent. The determination of total polyphenols and flavonoids were performed by UV-Spectrophotometry. The antioxidant activity was performed using (DPPH) method and showed significantly high capacity. The aqueous solution was slightly red to orange colour, Acidic (4,2 PH), very good Emulsifier (Oil in water one Phase <24 hr). The mineral content showed significant % of (Al, Fe, Ca, Na,) and Low percentage of Heavy Metals.		

SD-03	AUTHOR(S)	ABDALBASIT IBRAHIM ADAM ABDALLA
ORGANIZATION	B. SMART CARE TECH (B.SCT)	
TITLE OF INVENTION	Comprehensive Smart Waste Disposal System (CSWDS)	
vital innovation is designed to reduce risks which faces The disposal of human waste and garbage resulting from human activities and water is one of the most important processes to provide the environment suitable for individuals community, And it is necessary to work on the collection and disposal of waste to places of disposal at the cheapest cost possible, This should be done in an appropriate engineering manner according to the technical bases within the requirements of 'the basic conditions of the public health components', the protection of the environment and security.		

TAIWAN

TW-01	AUTHOR(S)	Baozhang Feng / Lei Feng
ORGANIZATION	V-erb Gene Therapy (Tianjin) Co. LTD	
TITLE OF INVENTION	Antigene V-erbB Oligodeoxynucleotide and Its Application	
In 1970s, foreign cancer research has gained important progress and both the oncogene and anti-oncogene have been found. Enlightened by the pathogenesis research achievements of Avian Erythroblastosis, we used V-erbB and V-erbA, oncogenes of the virus, as the probe, and the nucleic acid hybridization technique to study the pathogenesis of cancers, such as leukemia. Backed up by the resource advantage of our country, we have basically illustrated the etiopathogenesis and etiology of cancers such as leukemia and have developed a series of products targeting at the common pathogenous gene and carcinogenesis-relate gene, which makes true the gene therapy and prevention at the early stage of cancers such as leukemia and esophagus cancer. The effective rate exceeds 90%. At present, we have 5 patents for invention. The first product has already been granted its usage report and appraisal report.		

TW-02	AUTHOR(S)	LI,HSIANG-CHE / YEN,TING-YU / HSIEH,SHAO-TANG / LIU,SHU-WEI / HSU,KAI-MING / CHUANG,CHUN-HAO
ORGANIZATION	ER XIN HIGH SCHOOL	
TITLE OF INVENTION	A good light's sleep	
Normally, the night lamp's users sometimes forget to switch them off when they are sleeping, and cause the unnecessary waste of electricity. Inside the device are two sound wave releasers. One is used to release 20 MHZ, witch keep bugs away, while the other one is used to release 1000HZ sound waves, which decrease the interruption of Theta waves during sleep and prevent insomnia happening. Besides, the outer designing of light is not only durable but also attractive. So, having it inside your house is your best choice.		

TW-03	AUTHOR(S)	LI,YAO-CHENG / ZHENG,ZHI-XUAN / WANG,HE-KAI / LIU,JUN / LI,YUN-HONG / PENG,ZHI-JUN
ORGANIZATION	ER XIN HIGH SCHOOL	
TITLE OF INVENTION	Emergency Electricity Supply	
It does us good to go mountain climbing. However, before we do it, we have to be well-prepared, based on our capability, physical condition and experience, to choose the mountain that fits us. By no means can we undergo tough and difficult mountain climbing or challenge a 3,000 meters or higher mountain at will. Besides, it is requested to pay more attention to the weather condition as well as prepare sufficient water and food supply and relevant equipment including communication and first aid device.		

TW-04	AUTHOR(S)	CHIENTZU-JUI / TSENG,WEI-SHIANG / CHEN,WEI-CHUNG / HSU,HSIN-WEI / WU,HUNG-TING / HU,TING-XIN
	ORGANIZATION	ER XIN HIGH SCHOOL
	TITLE OF INVENTION	Light Emitting Clothing-like Unit
This design provides users, such as drivers, riders, road workers and the police with active safety equipment while in darkness or any bad weather condition. It has following characteristics: Using IC to convert the received light source to digital signal. Utilizes led technique to prolong the reaction time -- the shorter interval distance two vehicles have, the faster frequency the led flashes.		

TW-05	AUTHOR(S)	CHENG,CHUN-HAO / ZHENG,REN-HAO / SHEN,HENG-CHENG / PAN,CHING-FANG / JING, LONG-YUN / GUO,HAN-YANG
	ORGANIZATION	ER XIN HIGH SCHOOL
	TITLE OF INVENTION	Magnet Controlled Safe
In our current society, money has become something that is essential. Many investors have lost their confidence due to the high frequency of burglary, and the crashing of stark markets. In turn, we would like to invent a safe that is very secure, and has a very low code breaking potential. As for the safe's most important passcode, the used type would be very minimal, this is to ensure maximum safety. For that we have improved our original design of the safe, and invented this improved safe, which would be magnetic controlled, with more than one combination of passcode.		

TW-06	AUTHOR(S)	LAI,YI-HSIEN / SU,PO-WEN / CHANG,PO-EN / CHOU,SHU-HAN / HO,WEI-TING / HSU,CHIA-WEI
	ORGANIZATION	ER XIN HIGH SCHOOL
	TITLE OF INVENTION	Multi-function camping lamps
Camping lamps are necessary lighting equipment when we go camping. Normally, camping lamps are used to light up only but cannot meet other camping needs. Therefore, all the equipment needed we carry becomes burdens and causes inconvenience during camping. However, carrying this camping lamp with you makes all the trouble gone. Just by turning it on, you can have sufficient light and keep mosquitoes and snakes away.		

TW-07	AUTHOR(S)	WANG,YI-AN / LIN,SUNG-CHE / LI,YA-SYUAN / HSU,YU-YAO / LIU,TZU-WEI / CHOU,YU-KAI
	ORGANIZATION	ER XIN HIGH SCHOOL
	TITLE OF INVENTION	Multifunctional Bicycle Helmet
The development of the invention is to increase the safety of riding a bicycle. After all there're more and more people ride the bikes. Of course, riding bikes take the good with the bad. Riding the bikes can reduce the pollution of the environment, but we can't ignore the question of the safety. This is the reason why we create the invention.		

TW-08	AUTHOR(S)	XU,YU-WEI / LUO,WEN-HAO / LAN,YU-SIA / LIN,DING-JUN / CHEN,CHIH-YU / KHS,HSIAN-SHENG
	ORGANIZATION	ER XIN HIGH SCHOOL
	TITLE OF INVENTION	The Germicidal Device of Portable Eco-tableware, with Lighting Gear
Nowadays, people have their meals outside, increasing the usage of disposable tableware. Some people consider that using disposable tableware might be more sanitary and safer so as to avoid getting the infection through contacting with the saliva of a sick person. With the awakened sense of environmental protection, more and more people start to think over how to cut down the expense of natural resources.		

TW-09	AUTHOR(S)	TU,YUAN-XI / CHANG,YU-CHIA / LIAO,CHENG-WEI / HUANG,ZHI-WEI / KUO,JIE-RUEI / WU,CHEN-HSU
	ORGANIZATION	ER XIN HIGH SCHOOL
	TITLE OF INVENTION	Traffic Light Device
Thanks to the rapid development of technology and transportation, the distance between cities and suburbs has been greatly shortened. In turn comes more and more traffic accidents, breakdowns of traffic signs, poor condition of roads, speeding and failing to keep a safe distance which cause accidents all the time. What's worse, we waste a lot of money to deal with these problems. However, the traffic lights we use nowadays don't allow drivers having color blindness to have enough time to decide whether to drive or not, and this often results in accidents even cause death.		

TW-10	AUTHOR(S)	CHEN,WEI-MING / HO,YI-CHEN / LIEN-JIN / HUANG,DA-YI / CHEN,WEN-HAO / CHAO,YU-CHEN
	ORGANIZATION	ER XIN HIGH SCHOOL
	TITLE OF INVENTION	UV-LED
Our design aims to improve the traditional laundry way of helmets. Not having been washed for a lone time, the lining of helmets becomes smelly and cause folliculitis. This photo catalyst spray mist device specializes in killing germs simply by spraying it on the lining. Besides, it is also equipped with UV-LED which reinforces the effect of killing germs by 1800 times. Another feature of this design is that it has a hot-blast air timing device. When the lining is damp, we can turn on the hot blast air and dry it at once.		

TW-11	AUTHOR(S)	Luo Jun-Qi / KANG TSAI-HUA / CHIEN WEI / Xu Jia-Xin / Liang Xi-Qiu
ORGANIZATION		Qinzhou University / HungKuo Delin University of Technology
TITLE OF INVENTION		Heat dissipation device for data processing platform
The creation department provides a heat dissipation structure for rectangular equipment, including: a housing: at least two first air flow holes, respectively located on the opposite sides of the shell; at least two second airflow holes, respectively located on the opposite sides of the shell, and the connecting line of the second airflow holes perpendicular to the connecting line of the first gas flow hole; one tube shape The unit is mounted on the second airflow holes, in which the tubular unit has a plurality of plural holes; a fan is set in the tubular unit; and a power supply unit is set up to supply the power required for the fan.		
TW-12	AUTHOR(S)	CHEN, YI-SHIN / LAI, PEI-LING / HE, JI-RU / LIN, YI-YING / TANG, ZHENG-JUN / LIN , TING-YU / CHANG, HSING-YUN / WANG, WAN-LIN / CHAO, CHIEN-LEI
ORGANIZATION		Central Taiwan University of Science and Technology
TITLE OF INVENTION		Functional Bib-「DOU-QUAN」
This functional bib of our design is more attractive and diversified than before. It can be used not only in the meal, but also a functional bag (42cmx25.5cm, 40cmx27cm, 37cmx25.5cm, 36.5cmx26.5cm). Eating in many occasions, the elder's and children's caregivers busy cleaning dirty clothes and feeding, for those inconvenience factors, suddenly the designs come up with this functional bib. The functional bib is intent on universal design to simplify life for everyone, and to build environment more usable with saving the cost. Universal design benefits people of all ages and abilities. There are four colors to pick of our product.		
TW-13	AUTHOR(S)	LI, HSIN-PING / ZHU, HUI-XIN / TSENG, SHIH-LUN / XU, YAN-LING / JHU, YU-SYUAN / CHANG, HSING-YUN / WANG, WAN-LIN / CHAO, CHIEN-LEI
ORGANIZATION		Central Taiwan University of Science and Technology
TITLE OF INVENTION		Flag Tea Bag Holder
Flag Tea Bag Holder, the design ideas come from the tea bag holder which put the color printing paper of the national flag into the frame of the cup edge (2.5cmx3.5cm). It is not only can be hung on the frame of the national flag to avoid the tea bag falling into the cup, but also it used in meetings and daily life with the universal design.		
TW-14	AUTHOR(S)	Chun-I Lin / Kao, Nien-Tzu / Chen Chien-Yuan / CHAN YI-WEN / Wang Je Feng
ORGANIZATION		Cheng Yi Senior High School
TITLE OF INVENTION		The system of the logical thinking ability
This invention assesses a testee's learning ability through logical thinking by playing games. During the games, the test giver observes how the testee reacts and responds to the questions. The test giver thus obtains the testee's learning behavior, including his/her learning strength and weakness, and based on the observation, an analysis report is given to the testee. The analysis report helps the testee understand his/her own learning patterns, styles and characteristics so that the testee has an easier and clearer idea to choose his/her major in college and make the career plan. With this report, the teachers can facilitate their students to learn with their own pace and implement the educational vision to teach students in accordance with their aptitude. This invention applies an eye-tracking sensor, an interactive games device and behavior-analysis module.		
TW-15	AUTHOR(S)	Chin-Cheng Kuo / Fuh-Cheng Jong / Fu-Lin Lin / Wen-Chung Chang / Chih-Yi Lin
ORGANIZATION		Southern Taiwan University of Science and Technology
TITLE OF INVENTION		Floatable house
This invention is applied for Environmental protection at Tainan city. It include solar cells panel, raft, and submerged motor. So that, the Floatable House can change with the level of water level to reduce the floods loss.		
TW-16	AUTHOR(S)	Fuh-Cheng Jong / Yun-Tai, Hsueh / Fu-Lin, Lin / Wen-Chung, Chang / Chih-Yi, Lin
ORGANIZATION		Southern Taiwan University of Science and Technology
TITLE OF INVENTION		Land and Rain: an E-Book with Illustration and Words Regarding Environmental Protection
Hearing-impaired students understand people by reading lips. Our invention combining storybooks and computers will teach students by using a mother window of pictures and a child window of sign languages. By way of storybooks, students train to learn independently.		
TW-17	AUTHOR(S)	Fuh-Cheng Jong / Yun-Tai, Hsueh / Fu-Lin Lin / Wen-Chung Chang / Chih-Yi Lin / Yung-Wei Chang
ORGANIZATION		Southern Taiwan University of Science and Technology
TITLE OF INVENTION		Multi-function bird warning device
This alarm will be operated to show bright lights and loud noises, once thieves, birds and insects approach its sensor. Also, it could be used more, including farms, clothes drying field and etc.		
TW-18	AUTHOR(S)	Chin-Cheng, Kuo / Fuh-Cheng Jong / Fu-Lin, Lin / Wen-Chung, Chang / Chih-Yi, Lin / Ting-Yu, Chang
ORGANIZATION		Southern Taiwan University of Science and Technology
TITLE OF INVENTION		The digital sound source warning device by green energy
By this, the invention has the effect of warning, prompting and preventing pedestrians from crossing, and at the same time has the effect of saving energy, thereby enhancing its practical value.		

TW-19	AUTHOR(S)	Chin-Cheng, Kuo / Fuh-Cheng Jong / Fu-Lin, Lin / Wen-Chung, Chang / Chih-Yi, Lin
	ORGANIZATION	Southern Taiwan University of Science and Technology
	TITLE OF INVENTION	The warning device of versatile voice auxiliaries
This product provided U-type rack, attached a protruding material by the side of cup. Once water is added to the cup, this material will ascend until touching people's finger, and the sensor response to the buzzer, then showing warning.		

TW-20	AUTHOR(S)	FUH-CHENG JONG / YUN-TAI HSUEH / Fu-Lin, Lin / Wen-Chung, Chang / Chih-Yi, Lin
	ORGANIZATION	Southern Taiwan University of Science and Technology
	TITLE OF INVENTION	The structure modular teaching modules of solar cells
The creation of a silicon substrate, solar cells for principle, structure and organic solar cells designed two sets of interactive teaching building blocks.		

TW-21	AUTHOR(S)	Hsi-chuan Huang / Ieco (Xiamen) Aquaculture Co., Ltd.
	ORGANIZATION	Chienkuo Technology University
	TITLE OF INVENTION	Intensive type aquaculture system
This invention is to provide a collection culture device, which is a collection of several breeding tanks, and can be cultured in each culture trough to reduce the risk of damage and thereby achieve the objective of reducing losses. The other purpose of this creation is to be able to separate the growth of aquaculture in different aquaculture tanks, so that waiting for the harvest period to shorten, and thus achieve the effect of continuous profit. Each assembly space is composed of a container.		

TW-22	AUTHOR(S)	YU, CHUN CHE / WEI, CHI-HUNG / CHEN, YEN-YO
	ORGANIZATION	KAO YUAN UNIVERSITY
	TITLE OF INVENTION	TECHNOLOGY APPLICATION INFORMATION TO CAPTURE THE INTERNET OF THINGS
The present invention transportation vehicle information capture method can also retrieve data in the step of the library in, for example, the user is in a bus stop, and is provided with the subject matter of the bus stop, which may contain information about the subject matter of this bus stop location cards, and then, when the user uses the handheld electronic device to capture this augmented reality of the subject matter, and is seeking to reach the destination input, the database can be based on information currently available to do an analysis, then hand-held electronic device can retrieve information from the guide.		

TW-23	AUTHOR(S)	HUANG, CHING-HSIUNG / WEI, CHI-HUNG / WEI, CHI-HUNG
	ORGANIZATION	KAO YUAN UNIVERSITY
	TITLE OF INVENTION	DUSTPROOF SUNSHADE AND COLLISION SAFETY POP-UP INFLATOR
This new purpose, namely to provide an effective increase in the volume inflatable curtain shading effect of shading devices. Thus, this new type of inflatable shutter shade apparatus for an automobile, for installation in a vehicle, and can be used to shield the windshield. The inflatable curtain roll-up shade apparatus comprises a shade body, and a mounting mechanism coupled to the inflatable shade institution. The shade mechanism includes a retractor unit and mounted to the retractor unit into empty soft shade airbag, and the shade balloon may take-up position of the retractor unit of a retractor in, and an outwardly extending unfolded available in between the windshield sunshade shielding position of the change.		

TW-24	AUTHOR(S)	HSIAO, CHIH-CHING / WEI, CHI-HUNG / CHEN, YEN-YO
	ORGANIZATION	KAO YUAN UNIVERSITY
	TITLE OF INVENTION	HANGING SAFE STORAGE HANDLE DEVICE
The idea originated in the motive that when MRT rush hour because a lot of people crammed inside unable to grasp the hand, and by the passenger station at the airport because of too much baggage, and when it is unable to travel luggage sliding problems, so as to facilitate the design of the net rope firmly in place so that the handle associated baggage are no longer troubled, on the other hand also consider less space and therefore I present design increases above the hidden compartment space conversion function. Let compartment space becomes wider to increase the passenger seat standing, but also, if necessary, can be used as standing passengers gripped the handle. So the design of the present invention can bring passengers convenient and expand the scope of use features.		

THAILAND

TH-01	AUTHOR(S)	Siriganda Teingtung / Saowarot Meeneam / Pacharaporn Kalapakdee / Sastra Promarak
	ORGANIZATION	Princess Chulabhorn Science High School Phetchaburi
	TITLE OF INVENTION	Film from Protein Fibroin Blended Chloroplast to Absorb Carbon Dioxide and Produce Oxygen
While trees can absorb the carbon dioxide, they release it to the atmosphere at night. So, the researchers have made the interesting film with the objectives of finding the ratio of film-forming from fibroin mixed with the polymer, the absorption of carbon dioxide and oxygen production of film proteinblended chloroplast. It is conducted by boiling the cocoons with sodium bicarbonate 0.5% at 60 ° C for 20 minutes to get rid of glue silk. Then the extraction fibroin protein solution with ternary is made contain calcium chloride, ethanol and water (Ajisawa's reagent) Next, the solution from Dialysis process with Dialysis bag was centrifuged at 8,000 rpm. Later, forming fibroin using PVA and PEG as a plasticizer compounds are with the chloroplast extract from Pandan leaf, using the a cold buffer A (0.35 M NaCl) volume 1, 3 and 5ml respectively. The experiment process of absorbing carbon dioxide and producing oxygen of the film is conducted in a glass case at a closed system. It is found that the ratio of PVA : PEG : Fibroin is 2:1:1 with the best quality of the film in the same form with average thickness of 0.40 mm mixing with 3ml (Chl 3) of chloroplast. Another best quality is the absorption of carbon dioxide from 10,000 ppm reclined to 616 ppm. And the production of oxygen from 15.7% to 19.6%. Such film can be applied in the industrial area or warren.		

TH-02	AUTHOR(S)	Dr. Teerapon Tanomsakyut / Mr. Peerachai Asadachatrekul / Mr. Julapong Soathipaisan / Mr. Veerasak Pongthunyawichai
	ORGANIZATION	True Corporation Public Company Limited
	TITLE OF INVENTION	Get Stray Application
Get Stray Platform: Nowadays, there are a lot of stray dogs and cats around Bangkok and big cities in Thailand. It can cause troubles such as infections, rabies, and harm children and also quality of animal life. On the other hand, many kindly people try to help them as feeding but not sustainable solution. This GetStay Application can be sustainable solution for helping our society and keep balance between human and animals that align with UN sustainable Development Goals in term of Sustainable City and Community.		
TH-03	AUTHOR(S)	Dr. Teerapon Tanomsakyut / Mr. Vasan Hirunsatitporn / Miss Pathou Pimrabiab / Miss Jaruwan Bubphamalang / Mrs. Supreeya Techa-asawan / Mr. Attaphon Satiskanitkul
	ORGANIZATION	True Corporation Public Company Limited
	TITLE OF INVENTION	Smart Job
To serve the qualification DJSI of sustainability project. Bridging the labor market gap by equilibrates the demand and supply that will enhance the lack of corporate's new jobs (i.e. AI, Digitization). To develop workforce Job demand open Platform for all ages with all target groups. Collaborate Big Data across public and private sector and all industries.		
TH-04	AUTHOR(S)	Mr. Teerapon Tanomsakyut / Mr. Attaphon Satidkanitkul / Mr. Julapong Soattipaisa / Miss Jaruwan Bubphamalang / Miss Pathou Pimrabiab
	ORGANIZATION	True Corporation Public Company Limited
	TITLE OF INVENTION	Chauy Plook Application
There are 30 million farmers in Thailand, we need to help farmer to get more productivity and investment. This platform will provide necessary information about plant ex. weather forecast, pest calendar, soil analysis, soil maintenance, expense log book. All of them can be efficiency data for improve farm productivity and digitize farming to record and analysis in the future.		
TH-05	AUTHOR(S)	Dr. Teerapon Tanomsakyut / Mr. Thunpong Chaipreechapol / Mr. Julapong Soatipaisa / Mr. Chatpisit Kaewwata / Mr. Veerasak Ponthunyawichai
	ORGANIZATION	True Corporation Public Company Limited
	TITLE OF INVENTION	Smart Early Warning System (My wild elephant)
From the conflict of wild elephants with farmers. Due to the incompleteness of the forest, elephants lack sufficient food, this causes the farmer to go out and get the crops damaged. It's come to the Surveillance way in order to push the elephant back to the forest before the destruction of crops until too damaging. By storing the data to use in analyzing and solving problems sustainably.		
TH-06	AUTHOR(S)	Dr. Kittu Supchukun
	ORGANIZATION	Grenades Biotech Co.LTD
	TITLE OF INVENTION	Medical Juice
Nowadays, we are experiencing multiple drug resistances. Even though there are some substitution of the antibiotics with natural products, they do not seem to work that well. We came up with the solution called "Medical Juice" based on 4 principles: 1. The use the Self Emulsifying Drug Delivery System (SEDDs) which transform oregano essential oil into the form that can be absorbed at the desire target organ with the appropriate assigned dosage but without performing the digestion, 2. We have formulated the easy application in Spray dry technology which will change liquid to powder form. In addition, it is increase the water solubility and easier to transport, 3. We have tested our product, Medical juice, with the field trials. The result shows that our Medical Juice gives more effective outcome compared to natural oregano and other non-antibiotic replacements, and 4. This Medical Juice has been generated through the joint venture of the oregano producer in Europe and Grenades Biotech Co, Ltd. Our company believes that our SEDDs technology and Medical juice will the first choice of high-quality non-antibiotic product for the broiler farm all around the world.		
TH-07	AUTHOR(S)	Dr. Kittu Supchukun
	ORGANIZATION	Grenades Biotech Co.LTD
	TITLE OF INVENTION	Molass G yeast
With the progress of biotechnology and the ability to develop Single cell protein, Grenades Biotech Co., Ltd. has put all of our efforts to do research support 2 different industries including: 1.Sugar and Ethanol industry: We advance the yeast recovery for enhancing ethanol production which will reduce the concern about biogas tank and we also able to transform cream yeast into Molass dried yeast, and it has introduced sugar industry to be "Zero Waste Industry" Get the fourth by- product of sugar industry (Molass, Ethanol, Biogas and Molass G Yeast), and 2. Single cell protein for feed industry: The nutritious dried yeast, Molass G yeast, has developed from the method called mixed dry designed. Start from design the way to manage cream yeast, by product from alcohol fermentation, to be finished Molass Dry Yeast which contain more nutrient and at affordable price. Now we can use Molass G Yeast to replace Soy bean meal in formulation. This technology is giving its best to better Biomass and the world environmental sustainability.		
TH-08	AUTHOR(S)	Dr. Kittu Supchukun
	ORGANIZATION	Grenades Biotech Co.LTD
	TITLE OF INVENTION	SEDDStrong
The world livestock production policy aims to reduce the use of antibiotic. However, to solve this problem, the system arrangement and the product designing have to function properly along with the animal's physiology, behaviors, and challenges that appeared. Our SEDDSTRONG is the solution for that complication because: 1. Adapting the Self Emulsifying Drug Delivery System (SEDDs) technology from the oregano essential oil and encapsulated with natural ingredient called Diatomaceous earth that helps with transportation and absorption inside the intestine. 2. Modifying our product to suit the animal's physiology has augmented 4 components which are: 2.1 Oregano SEDDs is reducing the infection of central pathogens, acting as good antioxidant, and increasing animal's feed intake, 2.2 Zinc Oxide Nanoparticle to protect the intestine, and 2.3 Butyric acid Nano Particle to reduce the smell of organic acid, 2.4 Natural product for Gut Health performance. It's the result of science and unique technology "		

TH-09	AUTHOR(S)	Mr. Manaskawin Phupinyokul / Mr. Tatiya Boonlert / Miss. Naranya Rujanawech / Mr. Aekarat Roongsrisoonthiwong / Mr. Khunthong Klaythong
ORGANIZATION	Princess Chulabhorn Science High School Pathumthani	
TITLE OF INVENTION	Biodegradable bag from soybean meal and water hyacinth fiber use rubber as a cementitious material	
Nursery bags are generally made of plastic. It is a waste that is difficult to digest. In addition, the problem of pulling seedlings out of the bag found that the roots of the seedlings lack. Affect the growth of plants. Researchers are interested in developing biodegradable biological bags. By using soybean meal with hydrochloric fibers and rubber latex as a cementitious material, it was found that the more soybean meal formulation was degraded faster. It is suitable for growing short-life plants or root crops. And the more hygienic water hyacinth formulations have slower decomposition rates, which are ideal for growing long life plants or rooting plants.		

TH-10	AUTHOR(S)	Yananthorn Rukthum / Soravit Waelveerakup / Ramate Nethwong / Khunthong Klaythong
ORGANIZATION	Princess Chulabhorn Science High School Pathumthani	
TITLE OF INVENTION	Roofing tiles from High Density Polyethylene (HDPE) and Rice Husk Ashes.	
This research aims to study of Mechanical properties of high density plastic roofing sheet (HDPE) and rice husk ash from community. And to reduce the cost of producing roofing sheets, roofing sheets are cheaper. The Tensile Strength Machine after testing the mechanical properties. It was found that the increase in the strength of the rice husk ash increased the value of flex strength and tensile strength. However, when the ratio of 2: 20: 80 (HDPE ash) increased, the flex strength and drag strength were highest.		

TH-11	AUTHOR(S)	Ms. Warissara Sappaso / Ms. Tipsuda Kensongkram / Ms. Nalattaporn Ponpakdi / Mr. Mathakiat Tachaphakkunkirati / Mr. Anurak Chumpla
ORGANIZATION	Move World Together Project	
TITLE OF INVENTION	Toilet Seat Uplifting Equipment	
Aged people have difficulty to sit and raise up when using toilet by themselves. In many cases, accidents occur as their joints and muscular are weaken and/or injured. This equipment is invented by rural high school students, help aging people managing 'personal affairs' independently. In addition, they can move their bowels comfortably with higher degree of safety.		

TH-12	AUTHOR(S)	Asst. Professor Dr. Korawinwich Boonpisuttinant / Mr. Sinpathu Hanvarki
ORGANIZATION	Thai Traditional Medicine College (TMC) / Rajamangala University of Technology Thanyaburi (RMUTT)	
TITLE OF INVENTION	ME DAY®: WHITENING MIRACLE NATURAL SKIN CARE	
ME-DAY: WHITENING MIRACLE NATURAL SKIN CARE is not only high efficiency for improve skin whitening, soothing and moisture with cost effective, and safety, but also conservation of Thai folklore wisdom. There is no any cosmetic from the extract of Bambara Groundnut in market. The farm of Bambara Groundnut that used in this products, will be promoted to be organic farm at Trung Province, which supported by VS09 Original Herb Company Limited.		

TH-13	AUTHOR(S)	Srung Smanmoo / Phiyada Ka-Yak / Weerachai Nasomphan
ORGANIZATION	National Center for Genetic Engineering and Biotechnology (BIOTEC)	
TITLE OF INVENTION	Dream Derma (EGF-Like Anti-Ageing Serum)	
The limitations of epidermal growth factors (EGF) such as low stability, high cost of production and complicated purification techniques open the opportunity for the discovery of alternative natural molecule to EGF. It has been shown that pepper extracts mimic the activity of EGF by the activation of EGF receptor. In order to enhance the skin permeability and bioavailability, we herein report the microencapsulation of pepper extracts which exhibits excellent degree of skin penetration and the activation of collagen. The microcapsule of pepper extracts is then used as an alternative active compound to EGF in our anti-ageing serum (under brand “dream derma”).		

TUNISIA

TN-01	AUTHOR(S)	Sami GUETARI
TITLE OF INVENTION	IMPROVED OMEGA-3 FOOD SUPPLEMENT BASED ON MARINE OIL	
All the dietary supplements that currently exist in the omega 3 world market are based on the ratio omega 3 / omega 6 to indicate that it is properly balanced products in fatty acids generating a better effect on cardiovascular diseases. This invention uses a new concept called the lipid prevention score that is the result of clinical studies that have been conducted in France for several years on 123 patients. The results of these studies have shown that when the lipid prevention score is optimal, the effect against raising the level of bad cholesterol in the blood will be better. This invention was first protected by a Tunisian patent filed in 2013. Subsequently, I made a PCT filing at WIPO in 2014. The results of the international search report and the reasoned written opinion prepared by the experts of the World Intellectual Property Organization (WIPO) positively assessed patentability, novelty, inventive step and the possibility of industrial application then I filed a European, Japanese and American patent application in 2015.		

TN-02	AUTHOR(S)	Iman EL NOURI / Abdelkarim NOURI
ORGANIZATION	Preparatory Institute for Engineering Studies of El Manar of Tunisia	
TITLE OF INVENTION	Sky Cleaner: Atmosphere's Purification from Greenhouse Gases	
Sky cleaner is a project that can save the environment and especially the ozone layer from the greenhouse gases. It is composed of a flying system and an Absorbing Toxic Gases System. It can reach the stratosphere layer and absorb polluted gases.		

TURKEY

TR-01	AUTHOR(S)	Melika Abrishami / Dorsa Afshari
	ORGANIZATION	SOLALEH HIGH SCHOOL
	TITLE OF INVENTION	Novel PH control system
<p>Certain amount of PH of material plays and effective role in the human and aquatic animals life, and hence, it is essential to know the exact amount of PH to control it. In this plan, due to the expansion of the world wide web (www), we decided to design a system for measuring the PH of liquids based on the internet of things (IOT). The system is capable of measuring the PH of liquids accurately, sending data collected over the internet as well as displaying online values for accurate decision making on the android software designed .</p>		

TR-02	AUTHOR(S)	SELVA SADIKOĞLU SAYHAN
	ORGANIZATION	SELVANO CHAPE TEKSTİL LTD. ŞTİ.
	TITLE OF INVENTION	(CHAPE), HEADWEAR PRODUCTION METHOD
<p>This invention is about women's belief, disease (cancer disease, old age, dermatological disorders) health (infection and hygiene problems in the period of treatment) uniforms and clothes in traditions and the way the wear it can close whole the head without aesthetic and fashion transmissions. Designed by thinking and according to fashion, belief, disease, health, uniform and traditional needs. It is made of specialized mold and castings that hold and close the whole head. This invention designed by and special technique prepared by special pattern and castings, we use and special way to completely close the whole head and stop sweating it. It will designed personally also is under producing. All women's that wear hat, scarf, bonnet and head accessories can use this product. Future prospects could be women's from all over the world that have this issue and searching for the solution.</p>		

UNITED ARAB EMIRATES (UAE)

AE-01	AUTHOR(S)	Monireh Ghazipour / Hamzeh Mirzaei
	ORGANIZATION	Barman Electronic Co (BECO)
	TITLE OF INVENTION	Asphaltene Electro Controller
<p>Asphalting – resin moieties in crude oil are found to carry residual surface electric charge, which is characteristics to their colloidal structure, asphalting – resin ratio and system PH. This research investigated the possibilities of controlling asphalting deposition in oil well by applying static electrical potential taking advantage of their residual surface charge. Laboratory experiments were conducted at static and also in dynamic condition constructing a dual flow loop set-up, equipped with precision pumping, pressure recording and regulated DC power supply. Neat and heptane-diluted crude oil having inherent asphalting deposition tendencies is used to investigate the influence of DC electrical potential on asphalting deposition tendencies. Real time deposition trend is interpreted through differential pressure build-up across the flow loops and also through quantitative estimation of deposited mass. The results were encouraging, showing up to 180% reduction in asphalting deposition in the cathode loop and about 140% increase on the anode loop at an optimized potential of 60 V DC.</p>		

UNITED STATES OF AMERICA (USA)

US-01	AUTHOR(S)	Teresa Harris
	ORGANIZATION	STILLWATER DISPENSERS
	TITLE OF INVENTION	Multi-dispenser refrigerator
<p>A refrigerator having ice and water dispensers on both the front, back and side improves efficiency and utilization of the refrigerator. Home floor plans show openings in interior wall to access the second and third dispensers. Great for large families or group homes by reducing traffic jams at the refrigerator and increases accessibility while maintaining energy efficiency.</p>		

US-02	AUTHOR(S)	Cyrus Nejat
	ORGANIZATION	Mississippi State University / Worcester Polytechnic Institute
	TITLE OF INVENTION	Nejat Aerospace Magnoplane
<p>New maneuvering system as a replacement for aileron, elevator, rudder, and flaps. The Nejat Aerospace Magnoplane (NAM) is designed as a low speed ($Mach < 1:00$) aerial vehicle that it can be modified as a high speed aerial vehicle. This aerial vehicle is able to operate on highlands and hilly sites such as landing on and launching from the mentioned sites.</p>		

US-03	AUTHOR(S)	Cyrus Nejat
	ORGANIZATION	Mississippi State University / Worcester Polytechnic Institute
	TITLE OF INVENTION	Advanced Nejat Aerospace Astrothunder
<p>The Advanced Nejat Aerospace Astrothunder is designed as a high speed ($Mach > 1:00$) aerial vehicle that it is modified from one of the inventor's patent application number of US12/930,780 with the name of: Nejat Aerospace Magnoplane. The purpose of the design is to make a very fast civilian aerial vehicle with compact landing area that able to accommodate many Advanced Nejat Aerospace Astrothunder or any typical airplane at the time of arrival and departure.</p>		

US-04	AUTHOR(S)	Cyrus Nejat
	ORGANIZATION	Mississippi State University / Worcester Polytechnic Institute
	TITLE OF INVENTION	Multi-function open duct heatthruster for space probe on the moon of Titan and interplanetary missions
<p>The device is used for spacecraft to provide both heat and thrust. The source of its energy that multi-function heatthruster uses is cosmic rays and charged particles that come from the solar winds and other stars. It works as speeding of charged particles based nuclear physics formulations that I created in my research project. This device is useful for very cold and hostile environment similar to moon of Titan and Moon of Io environment.</p>		

US-05	AUTHOR(S)	Aaliyah Yu / Maddox Yu
ORGANIZATION	Evergreen Valley High School, Chaboya Middle School	
TITLE OF INVENTION	Concussion Sensor with Cloud-Based Prediction Model Update	
Maddox likes to play football, but our parents are worried about concussion. Using Arduino platform, we developed a concussion detection sensor to monitor the hit impact force and to predict the likelihood of a concussion. When the potential risk of concussion is detected, the information is wirelessly sent to a smartphone, which is then loaded cloud and shared with parents, coaches, and doctors. Furthermore, with such data, an algorithm will periodically build a better prediction model between impact force measured and the concussion diagnosed. Such improvement is then automatically downloaded to each athlete's sensor for a better prediction.		

US-06	AUTHOR(S)	Maher Abdelsamie
ORGANIZATION	Environmental Credit Score Foundation	
TITLE OF INVENTION	System and methods for environmental credit scoring	
A computer-based system and methods to calculate an environmental credit score. This score represents the environmental credit worthiness of an individual, business, or other entity. A higher environmental credit score indicates better environmental credit worthiness. The score can be used like the community service by universities in making university admission, scholarship and award decisions. It can also be used in making employment, landlord-tenant decisions, and institutional policy decisions.		

US-07	AUTHOR(S)	Hassan Mahajer
ORGANIZATION		Minerva Kingdom Org.
TITLE OF INVENTION		Turbine With Dynamically Adaptable Savonius Blades
A vehicle that harvests higher altitude wind energy while it is parked in the sky. An electric vehicle that harvests higher altitude wind energy while it is parked in the sky. A turbine that the shape of its blades are dynamically controlled. This invention promise to stop the changing in climate, even restore the changes in climate, and solve most of the main challenges of this century.		

US-08	AUTHOR(S)	Hao Huang Taing / Sokkong Ang / Marisa Rithya
ORGANIZATION	Normandale Community College	
TITLE OF INVENTION	Marketch Business Vending Machine	
Inspired by the idea of a "Flea Market", Marketch (Market Technology) is an innovative business vending machine that opens opportunities for youth to earn money through trading new or used items inside the slot of Marketch in a limited amount of time. Marketch consists of slots; it operates as a market area for students to apply their business knowledge into practical experience. Additionally, Marketch provides users with a decoration paper to design and customize their slots to their preferences. Ultimately, Marketch is implemented primarily in high schools and universities, because educational institutions are where young people can learn and grow.		

US-09	AUTHOR(S)	Edward Huang / Austin Huang / Teddy Huang / Vivian Lin / Yen-Jen Wang / Hsiang-Wei Lin
ORGANIZATION	Portola High School / Portola Springs Elementary School	
TITLE OF INVENTION	TripBrush	
This product is a dust and mold-proof toothbrush that is made out of PLA material. Its brush head is interchangeable, and the handle is hollow, allowing three additional brush heads to be stored inside. It is convenient and easy to carry, especially for family trips: one toothbrush now can be shared by 1 to 4 people by simply changing the brush head. The tiny holes along the handle provide the brushes with ventilation.		

VIETNAM

VN-01	AUTHOR(S)	Nguyễn Quang Dũng / TrầnThị Minh Huyền / Vũ Huy Thành
	ORGANIZATION	Yen Hoa High School / Dao Duy Tu High School / THE OLYMPIA SCHOOLS
	TITLE OF INVENTION	Smart Tree
The smart tree can measure air humidity, air quality as well as temperature of the environment. In addition, it can charge the mobile phone using solar energy. Most importantly, the smart tree uses an innovative method to increase the efficiency of photovoltaic system.		

VN-02	AUTHOR(S)	Phùng Văn Ngọc / Trương Văn Tiến / Nguyễn Khắc Hùng	
ORGANIZATION		Institute for Water Development and Partnership	
TITLE OF INVENTION		Ship hydraulic gate	
The invention refers to a kind of new type valve, working according to the principle of floating around an axis at the bottom (float), most horizontal valves body submerged, just beyond the water of about 50 cm of water to spill over and deeper bottom drains about 30 cm to the title on the bottom.			

VN-03	AUTHOR(S)	Hoàng Trọng Sơn / Vũ Việt Anh / Nguyễn Thị Thu Trang
ORGANIZATION	HXH Joint Stock Company	
TITLE OF INVENTION	Waste treatment equipment	
The invention refers to the solution removal of the pipe and the temperature lines in the mechanical engines and the garbage bars to restore the following of the previous device before removal and undefined: A more install all pipes for the dynamic motor. Build the rule, the map for removal engineering processing and the lower motor temperature down in the automatic element.		

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As a studio marketing executive of Disney and then DreamWorks, over the years I have had the pleasure of working with HOW Creative of highly creative, innovative professionals of a variety of projects.

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The results: a 25% increase in conference attendance, something that had never been achieved previously.

Holly Beverly, Vice President Marketing



Howard and his team showed us how to articulate our company brand vision, philosophy, values, position and brand promise into a solid core brand essence, including our brand identity, website, trade show display, printed collateral and other critical touchpoints. The result was ATI won #41 on the "Inc. 500" list of fastest growing privately held companies the following year.

The branding made a huge difference!

ATI had no branding whatsoever when we engaged HOW Creative; not even logo/brand icon. He guided us how to use branding to establish our identity and vision in the telecommunications industry. The result was over 2000% growth in less than 4 years!

Thanks, Howard.

Best regards, Nancy Ridge, Vice President



The best way to start is to say it has been 4 years (minimum) since we last used the direct mail campaign which we believed to be due to the success of the direct mail branding approach. What I mean is, if you look at the last 40 homes (from the past 4 years) 80% of those clients can be attributed, connected to the initial clients we acquired through the direct mail brand campaign. The success of the defined and the frequency of the launch scheduled designed.

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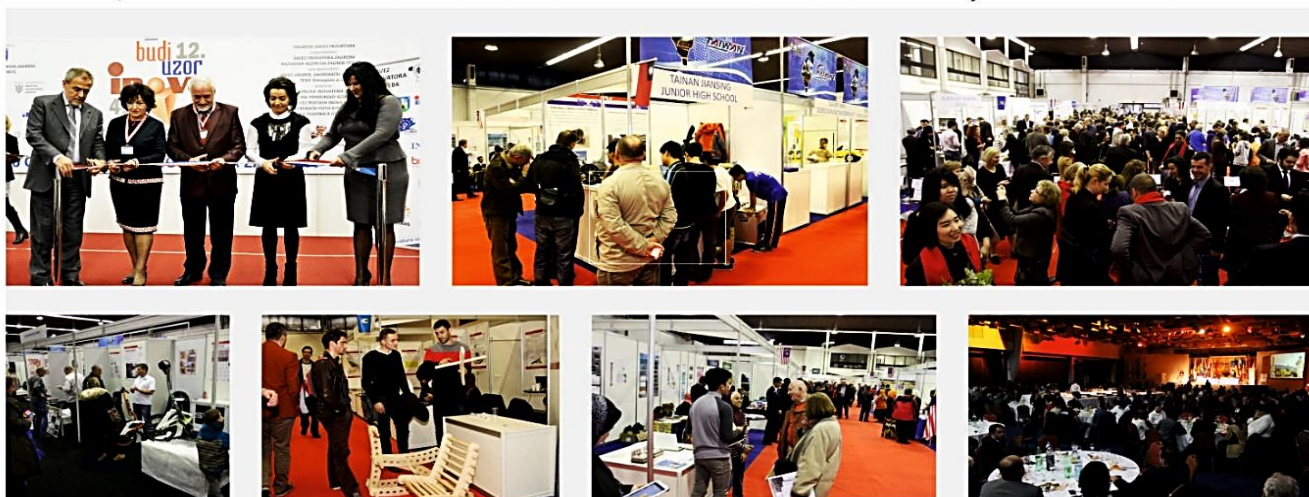


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Where inventions are born



INTELLIGENT DEVICE FOR AUTOMATICALLY CHANGING THE ORIENTATION OF A PHOTOVOLTAIC PANEL

Registered under PCT international patent application N° PCT/MA2017/050005 - WO/2018/056797

INVENTOR: Majid EL BOUAZZAQUI

AWARDS HISTORY



Gold Medal with Mention during IWIS 2017, Poland



6 Gold Medals from China, Taiwan, KSA, Malaysia and Poland

South Korea / Best Invention Award from FIRI, Iran

PROBLEM TO BE SOLVED

Photovoltaic panels are effective only if the photovoltaic panels are clean, dust-free and sand-free.

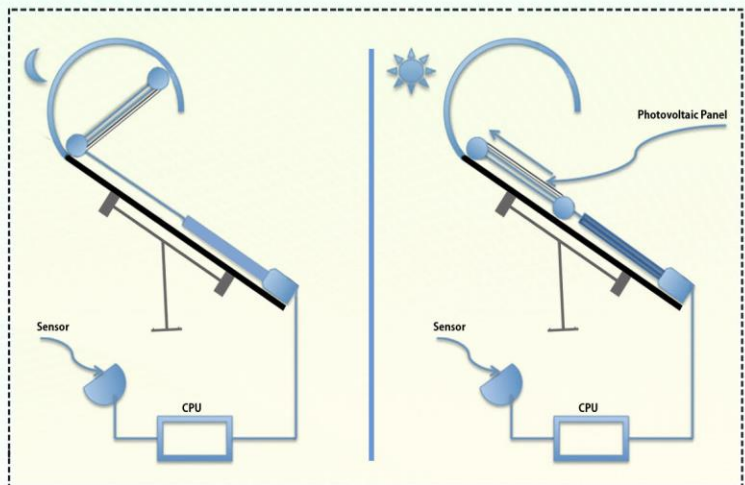
This requires regular cleaning of the photovoltaic panels with water. And there is a very high number of photovoltaic panels which require regular cleaning.

For example, in Topaz solar plant there are **9 million solar panels**. So how much water is **necessary to clean** them daily?

Generally, **a great consumption of water and fuel** (for the transport of this water) is required to clean the solar panels in solar plants. And therefore, the use of precious water reserves and air pollution.

THE INVENTION

The invention is a device for automatically and regularly removing dust or sand particles which may accumulate on the surface of a photovoltaic panel in order to ensure maximum long-term performance. Using mechanical means to orient a photovoltaic panel towards the ground (to clean it) or towards the sun by the control of a motorized telescopic arm depending on the weather conditions and the sun light availability (day or night),



Low production cost



Clean Energy



Easy to Implement



Less CO2 Emissions



Fuel Saving



Water Saving



Energy Efficient

CONTACT

e-mail: m.elbouazzaoui@gmail.com

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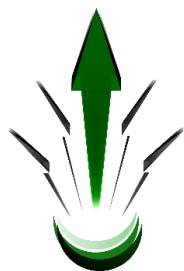
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