



ASSOCIATION OF SCIENCE, TECHNOLOGY & INNOVATION

ANNUAL REPORT 2015



The background of the page is filled with various abstract, colorful geometric shapes. These shapes, including triangles, trapezoids, and irregular polygons, are scattered across the page in shades of blue, green, yellow, purple, and grey. Some shapes overlap, creating a layered effect. The overall aesthetic is modern and artistic.

ASTI Annual Report 2015

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“ Science can be
used to both
teach
critical thinking
skills and improve
language. ”

- Dr Mohamed Yunus Mohamed Yasin



Message from the President

It was an interesting year for ASTI. Although our projects were doing well, our funding failed to keep up. It was a challenge, and caused us to rethink our approach in order for us to be more sustainable. Our first and our largest project, Science Fair for Young Children saw its biggest challenge ever in terms of funding, resulting in postponements of the dates for the final national event by 3 times.

However, we are rich in friends and supporters. We are indeed thankful to all our stakeholders without whom we would have never succeeded; which includes our vendors (one of whom, upon finding out our funding issues, printed more than 30,000 books for free to be given out as gifts for School Level Science Fair), our sponsors and friends, our volunteers - both young and old, and finally our committees and staffs who have worked tirelessly to make all that we do more meaningful. This was certainly our biggest lesson for the year.

A wise person was once asked "Tell me how I can be successful?" The wise man replied, "Read something no one else is reading, think something no one else is thinking, and do something no one else is doing". The problem with standardize learning, although necessary, is that "You are reading what everyone else is reading, thinking what everyone is thinking, and doing that which everyone is doing". ASTI tries its best to provide an avenue to break this mold, even if it would be for a little while.

Finally, many overlook or do not realize the transformational role a teacher and a headmaster of a school can play in the future of a child. We have seen how some teachers had taken extra step to take their students to achieve great achievements. All we can do are small efforts to empower them and support them in their tasks of ensuring the wellbeing of our nation in the future. And we thank you for sharing with us in your success. We salute you and we will never forget.

Once a traveler was passing through a refugee camp and met someone who looked very skinny, like she had not eaten for weeks. The traveler then offered her the meal that he was eating. The first thing the refugee person said was, "Let's share."

We hope for the best in the coming year,
Asking for better than which we hold dear,
Not knowing perhaps that all good things come slower,
Step after step, year after year - forever,

Many ambitions many resolutions,
We continue to make year after year,
Forgetting that maybe the best resolution is in the heart content,
Not the one that is written down just once every year,

Ask for much year after year,
Better perhaps to ask the courage to give,
For that which is not given is soon taken away,
Since nothing can be retained for all must constantly flow,

So we ask for renewed mercy - Forgiving although it still hurts,
For generosity - Giving until it hurts,
For love - Sacrificing even when it hurts
But mostly - For contentment - Until the hurt no longer hurts.

Dr. Mohamed Yunus Yasin
President



Executive Summary

ASTI, Association of Science, Technology and Innovation, champions the role of science in the community and inspires the young generation of the nation to join and excel in the world of science. ASTI has conducted events and taken up a few projects in the year 2015 in its role to encourage the use of science in almost everything in our everyday life.

ASTI's first and largest project is Science Fair for Young Children (SFYC) done in Tamil schools across the country. In 2015, SFYC was held at 3 levels, namely School Level Science Fair (SLSF), Zone Level Science Fair (ZLSF) and National Science Fair for Young Children. We trained approximately 710 teachers in 9 zone across the country. SLSF 2015 was held from February 2015 till October 2015 with a total of 327 Tamil schools participating in SLSF. Meanwhile from May till July 2015, ZLSF 2015 was held in 9 zones. A total of 221 schools participated in Zone Level Science Fairs. The National Science Fair for Young Children (NSFYC) 2015 was held on 3rd October 2015, Saturday at Manipal International University, Nilai. Sixty schools took part in this national level science fair.

The Young Inventors Challenge (YIC) 2015 is a competition for secondary school students and it is open to all students. We trained participants and their mentors in 7 regions across the country including Sabah and Sarawak. A total of 52 teams took part in the Grand Finale with one school from Singapore taking part. The event was held on 19th September 2015 at Jeffery Cheah Hall, Sunway University.

Creative and Critical Thinking Camp (CCT) is a camp for the young to think both in creative and critical manner. Due to bad weather (flooding) in December 2015, ASTI's 3-day CCT camp was cancelled. Despite that, ASTI staffs and representatives were trainers at camps organised by Malaysian Community & Education Foundation (MCEF) called CCT - ILHAM Camp. This CCT ILHAM Camp was a one day event held in North, Central and South zones. This camp was opened for Form 1, Form 3 and Form 4 students. A total of 858 students took part in CCT ILHAM.

Science Film Festival (SFF) is a celebration of science communication. ASTI was the organising partner for Science Film Festival 2015 with the Goethe-Institute, the German-Malaysian Institute (GMI), the Malaysian Nature Society (MNS), the Ministry of Education Malaysia and Siemens Malaysia. Science Film Festival 2015 is the 5th Science Film Festival in Malaysia and was held on the 5th of November 2015 at GSC Pavilion, Bukit Bintang, Kuala Lumpur. ASTI involvement in this event was in the Opening Ceremony and Distribution of SFF School Packs.

ASTI Innovation in Community Award (ASTI-ICA) is given to an individual or a group of people who are involved in projects by using Science and/or Technology and/or Innovative methods for the benefit of the community. In 2015, ASTI has renamed the award to "The Abdul Kalam Innovation in Community Award" in recognition of Dr. APJ Abdul Kalam. The recipient of the award in 2015 was YB Raven Kumar Krishnasamy for his contributions to the Indian community in Johor and his contributions to ASTI and Science Fair for Young Children.

ASTI Learning Futures(ALF) is a project to promote, test and conduct innovative ways of learning. The first project under ALF was with Learning Orchard Sdn. Bhd. and is called Project 'ALI'. The project is to introduce and encourage online learning in students in the country. For this project, an e-Learning portal called EDUKATE (KATE is an acronym for "Knowledge Augmented by Technology in Education"). We did a pilot project with students from SJK (T) Rantau and SJK (T) Palaniandy using the system.





1

INTRODUCTION

The Association of Science, Technology and Innovation (ASTI) is an association of educators, scientists, industry representatives and individuals who are committed in advancing the role of the scientific community in inspiring the youth of the nation to join and excel in the field of science.

The members aim to help revolutionise the teaching, understanding, and awareness of the vital role science, technology and innovation (STI) plays in fulfilling the economic, health and environmental requirements of the world's population.

Members also seek to mentor and encourage youth to seek new innovative methods and technologies that will enhance the understanding and learning of science.

In addition, ASTI tries to use science, technology and innovation for the advancement of mankind and protection of the environment that nourishes all. ASTI believes that STI is part of the wider realm of knowledge such as arts, history, language and others.

ASTI was set up by the founders of Science Fair for Young Children (SFYC) on 25th October 2012.

1.1 ASTI's Vision Statement










To be the premier association in Malaysia for the promotion of education and understanding of scientific knowledge, technological advancement and innovational projects in, both Malaysia and the world.

1.2 ASTI's Mission Statement



The Association of Science, Technology and Innovation (ASTI) provides leadership in scientific education and technical support to improve and grow awareness in all areas of science through the generation, dissemination and exchange of information and services.

1.3 ASTI's Objectives

-  To stimulate the discovery, application and dissemination of knowledge.
-  To create an atmosphere in which various segments of the scientific community freely exchange knowledge and expertise for the betterment of the community.
-  To provide encouragement and support to the younger generation, in particular students, through a variety of activities which are able to develop and help develop creativity, invention and innovative results in science, technology and innovation.
-  To recognise outstanding personal achievement in science, technology and innovation within the community.
-  To sponsor programmes for challenging and developing youth for leadership responsibilities.
-  To undertake projects which contribute towards the development of science, technology and innovation.
-  To provide training and solutions to organisations and institutions in the area of science, technology and innovation.

1.4 ASTI's Core Values Statement

The members of ASTI are guided in everything we do by the following core values:

Alignment to the Nation's Vision

- To support the country's vision to transform Malaysia into an innovative nation.

Commitment to Youth

- Our youth are our most important resource. Therefore, we encourage continuous learning and development to help empower all youths to be innovative in reaching their full potential.

Honesty and Integrity

- We demonstrate integrity every day by practising the highest ethical standards and by ensuring that actions follow our words.

Communication

- We promote a culture of open-mindedness, where we actively listen, communicate openly, respect the views of others, and encourage all to participate by expressing their thoughts and ideas.

Teamwork

- Success centers on inclusiveness and all involved working together and sharing information and resources to achieve common goals. We value each member and remain united in our successes and failures.

Respect

- We are dedicated in ensuring that everyone is treated with dignity and respect, differences are valued and individual abilities and contributions are recognized.




Social Responsibility

- We are obligated to secure the sustainability of the environment for future generations.

Wisdom

- We cherish wisdom in all our actions drawn from our own traditions and that of others.

1.5 ASTI's Guiding Principles

-  Long-standing commitment to youth and science through our association's structure which gives equal attention to science, technology and innovation.
-  Building and maintaining a relationship with likeminded societies.
-  Building and maintaining synergistic partnerships for the advancement of science, technology and innovation through education and training.

1.6 ASTI's Core Activities

Currently ASTI organizes Science Fair for Young Children (SFYC), Young Inventors Challenge (YIC), Creative and Critical Thinking (CCT) as its core activities. Its also runs regular outreach programmes as well as Science Film Festival with Goethe Institute and Project ALI with Learning Orchard Sdn. Bhd.

Raising Awareness, Promotion & Training

ASTI's membership will use its expertise to conduct training and workshops at various levels on areas related to science, technology and innovation as well as wider for related subjects. This will be two pronged. One, ASTI will prepare its own training and workshop modules to promote its service and two, it will also prepare custom training and workshops for specific stakeholders. The training and workshop sessions may be charged to help in raising funds for ASTI.

Conceptualization, Design & Implementation


ASTI will act as the Secretariat for all projects initiated under ASTI's umbrella. As the Secretariat, it will provide all administrative needs to each project. The expenses incurred by the Secretariat will be funded by the respective project. ASTI will advise the project's Working Committee on the amount of funds to be allocated in the budget for administration and management costs. ASTI may become a member of other associations for projects not initiated by ASTI, where it is not the Secretariat.

Advisory & Consultancy

ASTI will use the expertise of its members and supporters to raise awareness on ASTI by taking on advisory roles for any projects in the field of science, technology or innovation. To help raise funds for ASTI, it will also promote itself as a Consultancy Provider for a fee. If needed, ASTI may set up a company to do this work. ASTI may also work with other companies or organizations to deliver these outputs.

Stakeholder Management

ASTI will also use its funds to help sponsor viable projects or research. The decision to do so will be made by ASTI's Committee. The Committee can only approve sponsorship/funds up to RM 10,000; anything above this amount will require approval from the AGM. The funding can be in the form of:

-  seed money (Social Enterprise)
-  sponsorship
-  loan (Social Enterprise / Project Funding)

The Committee will also decide on the role ASTI should play in these projects if funding is given by ASTI. ASTI will act as Funding Advisor to all projects initiated by ASTI. ASTI will also act as Funding Advisor for third parties for a fee in order to raise funds.

2

STRUCTURE AND ORGANIZATION

2.1 Membership

In order for ASTI to maintain a high level of expectancy from both members and the public it deals with, membership will be strictly controlled and kept at an optimal number.

2.2 Committee

President:

Dr. Mohamed Yunus Mohamed Yasin

Vice-President:

Dr. Subramaniam Gurusamy

Secretary-General:

Ms. Vanitha Vasu

Assistant Secretary General:

Ms. Umahsankariah Muthunaikar

Treasurer:

Mej. Dr. Vikneswaran Munikanan

Committee Members:

- 1) Dato' CM Vignaesvaran Jeyandran
- 2) Mr. Nadaraja C. Kalimuthu
- 3) Mr. Saravanan Vimalanathan

Ordinary Members:

- 1) Mr. Suresh Ramasamy
- 2) Mr. Yeo Keng Un

2.3 Honorary Auditors





- 1) Mr. Mohan Sankaran
- 2) Mr. Anandan Shanmugam

As required by ASTI's Constitution, the auditors have dutifully examined ASTI's annual accounts for the Financial Year 2014/2015 and approved them.

2.4 Advisory Panel

The ASTI Committee shall invite person(s) to be a member of ASTI's advisory panel. ASTI's advisory panel is made up of Experts in the field of Industrial Leaders and Community Leaders.

The role of the advisory panel is to advise ASTI on:

-  developing professionalism and leadership in its area of work
-  the implementation of its projects
-  the further development of existing and future projects for ASTI
-  to help resolve potential disagreements within ASTI, as when required.

In addition to the above, ASTI hopes that its advisors will also be ambassadors for ASTI in order to facilitate the achievement of the association's mission and objectives.

ASTI's advisory panel consists of the following members:

Honorary Advisor:

YB Datuk Dr. Abu Bakar bin Mohamad Diah

(Deputy Minister of MOSTI, Malaysia)

International Advisor:

Mr. Mohamed Al-Harthy

(Former Chief Executive Officer at Oman Society for Petroleum Services)

Advisors:

- 1) Y.Bhg Prof. Dato' Dr. Tamilselvan Muthusamy
- 2) Y.Bhg. Datuk B. Sahadevan
- 3) Y.Bhg Datuk Tharuma Rajah
- 4) Prof. Kurunathan Ratnavel
- 5) Prof. Rajah Rasiah
- 6) Dr. Shanmuga Siva
- 7) Dr. Ettikan Karuppiyah
- 8) Mr. Sathish Ramachandran
- 9) Mr. Suresh Thiru
- 10) Mr. Ve. Elanjelian
- 11) Mr. Naidu Appanan
- 12) Mr. Mohan Menon
- 13) Mr. S.T. Rubaneswaran
- 14) Mr. Thiagaraja S. Rengasamy
- 15) Captain Surendran Menon
- 16) Mr. Shanmugam VKS





PROGRAMMES AND ACTIVITIES

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3.1 Science Fair for Young Children (SFYC)

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3.1.1 History of SFYC

In 2003, a team was set up to organise the Young Scientific Explorers, and a group of volunteers visited schools to demonstrate simple yet exciting projects to students followed by a trip to the National Science Centre. Upon its success, and recognising the benefits of a science fair, we initiated the SFYC in 2006.

A team of scientists and educationists was formed and tasked with developing the concept, materials and the supporting structure to implement pilot projects. In 2007, the first SFYC was held at the Dewan Tunku Canselor, University Malaya as a one day event and it was a big success with 49 teams from Selangor and Wilayah Persekutuan taking part. The enthusiasm shown by the participating students was simply electrifying!

The SFYC was then expanded nationwide in 2008 with 197 teams from eight zones participating. The final event was held as a 3 day event at the National Science Centre, and was graced by the Chief Secretary of the Education Ministry, Tan Sri Dr. Zulkurnain bin Haji Awang.

In 2009, a total 207 teams participated in Zone Level Science Fairs and the best 60 teams were selected for the 3 day national level event which was held at Kelab Kilat (TNB Hall) in Kuala Lumpur.

The following year, 285 teams successfully took part in the zone level events in 9 zones nationwide and the national level event was held at AIMST University, Kedah with the participation of 60 best teams. The zone level science fairs in 2011 and 2012 were held in 9 zones nationwide with 274 and 269 schools taking part respectively.

In 2013, 282 schools participated in the state level science fair in 9 zones. The national level even of 2011, 2012 and 2013 was held at German-Malaysian Institute (GMI), Bangi with 60 top teams taking part. The national level event was a 3 day event.

In 2014, a total of 261 schools successfully participated in the zone level science fair in 9 zones. The national level event of 2014 was held at Dewan Raja Muda Musa, Shah Alam as a one day event. Meanwhile in 2015, 221 schools participated in the zone level science fair held in 9 zones nationwide. And the national level event for 2015 was held at Manipal International University, Nilai with 60 schools participating in the one day event.

3.1.2 Objectives of SFYC 2015

SFYC 2015 had the following objectives:

- to review and improve the resource materials—the 'SFYC Folder'—provided to students, teachers and coordinators of SFYC; to add new science projects to the sample projects already available.
- to train science teachers from schools on 'hands-on' science and science project to encourage the organising of School Level Science Fairs in schools
- to encourage more schools to organise School Level Science Fairs.
- to encourage students training for each zone.
- to promote parents training to each zone to help students and schools to organize School Level Science Fairs.
- to empower coordinators to organise Zone Level Science Fairs.
- to organise a National Level Science Fair for the best 60 teams.
- to encourage students to participate in National and International Science Competition / Exhibitions / Fairs.

3.1.3 The School Level Science Fair, SLSF

Schools were provided with training, such as Teachers Training and materials before conducting School Level Science Fairs at their respective schools. The School Level Science Fair was designed and can be conducted for all the students in school from Standards one to five. ASTI sponsored story books for the winners from each standard and certificate of participation for all the participating students. A total of 327 schools out of 524 Tamil schools in the country participated in SLSF 2015 nationwide which was conducted from February till October 2015.

3.1.4 The Zone Level Science Fair, ZLSF

Zone Level Science Fairs were held in 9 zones from May till July 2015. The total number of schools that participated in ZLSF in 2015 was 221 schools.



3.1.5 The National Science Fair for Young Children: Event Summary

The National Science Fair for Young Children (NSFYC) 2015 was held as a one (1)-day event from 7.30am to 5.30pm on 3rd October 2015 (Saturday) at Manipal International University, Nilai (Negeri Sembilan) and it was a success.

The Working Group Committee formed a special team to organise National Science Fair for Young Children 2015 a month before the event. The Event Committee was led by Ms. Kalaivany. A total of 14 departments were formed and tasks were delegated to each Head of Department (HOD). The National SFYC was assisted by more than 53 volunteers from Manipal International University and Institut Pendidikan Guru Raja Melewar Seremban.

The Head of Event Committee and the other HODs executed their tasks well with the volunteers to ensure those participating and attending the event could do so easily, and were provided with all the necessary assistance needed.

The NSFYC was coordinated as follows:

3rd October 2015 (Saturday)

The day started at 7.30am with the arrival and registration of the participants and teachers at the registration counter which was set up at the foyer. Each school was given RM200 as allowance at the registration counter. The in-charge teachers from each school were allowed to register at the counter. Meanwhile, the students and other teachers were allowed to just place their display items at their booths. During the registration, each school received a 'goodie' bag which consisted of tags, food coupons, guidebooks, ASTI 2014 annual report, souvenir books, T-shirts and flyers. After the registration and breakfast, the students and teachers were allowed to enter the hall to set-up their booth until 9.00am.

Exactly at 9.00am, the Opening Ceremony was held at the Manipal International University Lobby and officiated by ASTI's President, Dr. Mohamed Yunus Mohamed Yasin. Dr. Mohamed Yunus launched the event by placing the challenge trophy of National Science Fair for Young Children 2015 on stage which was handed over by 2014's champion SJK(T) Jalan Yahya Awal, Johor.


From 9.30am onwards, the judges were allowed into the hall for an evaluation. The judges took about 4 hours for the evaluation.

Meanwhile, the teachers were involved in activities such as discussion and sharing sessions with the organising team, which involved a motivational talk, an experience sharing session and dialogue with the Judging Department. Lunch was served from 12.30 pm to 1.30 pm. The participants continued with the judging evaluation. At the end of the teachers sharing session, the teachers were given certificates as a token of appreciation.

The public viewing officially started at 1.30pm and ended at 3.00pm. During the session, all the participants were presented with certificates and medals by our special guests at their respective booths. A few booths were set-up at the entrance by organisations such as Uma Publication and Dimension Bookstore.

Our guest of honours for the Closing Ceremony were Datuk Dr. Jeyaindran Tan Sri Sinnadurai, Chairman of MyNadi Foundation and Professor Datuk Dr. NS Rajendran, Director of SEDIC & Coordinator of Action Plan for Future of Tamil Schools. Professor Datuk Dr. NS Rajendran arrived around 2.00pm and visited the booths with our special guests, accompanied by Dr. Mohamed Yunus Mohamed Yasin - President of ASTI, Dr. Subramaniam Gurusamy - Vice President of ASTI, Major Dr. Vikneswaran Munikanan - Treasurer of ASTI, YB Raven Kumar Krishnasamy - ADUN Tenggara, Datuk Dr. Thillainathan, Datuk Sothinathan - Director of Uma Publication, Datin Kanagam - PRISMA, Mr. Nadarajah - Penolong Pengarah Sektor Pengurusan Sekolah JPN Johor, Mr. V. Mugilan, President of MIVA, Mr. Selventhiran - Project Director of Science Fair for Young Children 2015, Prof. (Dr) Pooti Laxmi Narayana Gangadhara Rao - Vice Chancellor, Manipal International University, Nilai and Mr. Madhukumar M K - Senior Vice President & Chief Operation.

At 3.30pm, the closing ceremony began, and ended at 5.30pm. There were 3 categories of winners: Innovation Category, Research Paper Category and NSFYC Winners. All categories were judged by capable judges.



The top 3 winners of the Innovation Category received certificates and cash prizes worth RM500, RM400 and RM300. The top 3 winners of the Research Paper Category also received certificates and cash prize of RM500, RM400 and RM300. All the top 10 winners of the event went back home with prizes. The Overall Champion of the event received a Challenge Troph, trophies, certificates and prize money of RM2000. The 1st Runner Up of the event received trophies, certificates and prize money of RM1500. And the 2nd Runner Up received trophies, certificates and prize money RM1250. Meanwhile, the 3rd and 4th Runner Up received trophies, certificates and prize money of RM750 and RM500 respectively. Whereas the consolation prize winners who were 6th seeded till 10th seeded received certificates and prize money of RM250 each. The prizes were given away by our guest of honours Datuk Dr. Jeyaindran Tan Sri Sinnadurai, Chairman of MyNadi Foundation and Professor Datuk Dr. NS Rajendran, Director of SEDIC. Datuk Dr. Jeyaindran announces special prizes as four robotics sets for the champion, first and second runner up's of NSFYC2015. He also promised to upgrade the science lab of the champion's school.

The list of NSFYC 2015 winners is as follows:

NSFYC WINNERS

1. SJK (T) LADANG ALMA, PENANG
2. SJK (T) TAMAN TUN AMINAH, JOHOR
3. SJK (T) KULAI BESAR, JOHOR
4. SJK (T) NILAI, NEGERI SEMBILAN
5. SJK (T) BINJOL, KEDAH
6. SJK (T) TAMAN PERMATA, SELANGOR
7. SJK (T) WELLESLEY, KEDAH
8. SJK (T) PASIR GUDANG, JOHOR
9. SJK (T) BUKIT MERTAJAM, PENANG
10. SJK (T) BANDAR MENTAKAB, PAHANG

INNOVATION CATEGORY

1. SJK (T) LADANG ALMA, PENANG
2. SJK (T) NILAI, NEGERI SEMBILAN
3. SJK (T) DESA CEMERLANG, JOHOR

RESEARCH PAPER CATEGORY

1. SJK (T) KULAI BESAR, JOHOR
2. SJK (T) TAMAN PERMATA, SELANGOR
3. SJK (T) SCARBORO, KEDAH

3.1.6 Conclusion

We were generally well pleased with the achievement of SFYC 2015. All our efforts for the event paid off with good response from schools which was overwhelming and the event was such a great success.

Kindly refer to the attached CD for the full report of Science Fair for Young Children 2015.



Students are made aware of the importance of safety in the laboratory. They are instructed to wear lab coats and safety glasses. The posters in the background provide information on laboratory safety and the importance of following instructions.

The students are engaged in a practical activity. They are using a pipette to transfer liquid into a small container. The activity is part of a science experiment, likely related to the study of simple cells.

GRAPHIC DESIGNER
ALANWAR BAKAR
011 FEBRUARY 2024
AMBITIOUS
GOAL
MUST
PLAYING GAME

INSTRUMENTS OF PROPERTIES CHARACTERISTICS AND FUNCTIONS OF A SIMPLE CELL

3.2 Young Inventors Challenge (YIC)

3.2.1 Background

Science Fair for Young Children (SFYC) is a project designed for primary school students, and about 200,000 participants have taken part in this initiative at the schools, zone and national levels over the 9 years. As a follow up to the SFYC, a competition at a more advanced level for the secondary school was proposed in the form of the Young Inventors Challenge (YIC). It requires teams of up to 5 members each to put their minds together and come up with an invention. This competition started in 2013 with the theme "GREEN INVENTIONS: ON SUSTAINABILITY". A total of 12 teams from all over the country participated in this pilot project, showcasing their green inventions.

In 2014, the Young Inventors Challenge competition was open once again to secondary school students aged 13 to 17 years old and we encouraged the teams to be in groups of 3-5 students of different races to come together with an inventive mind. The purpose of the programme is to encourage the creative and inventive capability of young people. The theme for YIC 2014 was kept the same; GREEN INVENTIONS: IDEAS ON SUSTAINABILITY.

In 2015, we organised the challenge with the theme "Inventions to Help a Million: To Make the World a Better Place".





After the initial publicity and acceptance of statement of interest from teams, the students were given the proposal writing manual to assist them to write a proposal.

The project was then implemented in 3 phases comprising of:









Phase One: Proposal submission, 145 proposals with various invention ideas were received and 63 teams were shortlisted to participate in the Grand Finale.

Phase Two: Workshop session The shortlisted teams were given training in 7 locations across the country in Penang, Johor, Kelantan, Terengganu, KL & Selangor, Sabah and Sarawak. Phase Three: Final Competition. The final competition was held in Sunway University, Subang Jaya on 19th September 2015. All together 52 teams took part in the Grand Finale.

Among the main objectives of YIC 2015 were:

-  to give an opportunity to young and future inventors to develop and showcase their inventions in the area of "helping many people".
-  to help young inventors to experience the inventive cycle, from conceptualisation to product/prototype.
-  to introduce the idea of "using inventions to make a positive change in the society" to the participants.
-  to give opportunities to young adults who are inventive to promote their ideas to the outside world.

It was hoped that, by participating in YIC 2015, the participants would:

-  produce an original invention and receive recognition for it by participating in this event.
-  meet and network with other inventors who share similar passion.
-  develop creative and innovative thinking skills.
-  develop teamwork dynamics to solve problems.
-  use resources such as the internet, library and experts to hone their research skills.
-  learn to document their invention ideas.
-  enhance self-esteem and confidence.
-  acquire public presentation and writing skills.

3.2.2 Event Day Summary

YIC 2015 was held on 19th September 2015 at Jeffrey Cheah Hall, Sunway University, Subang Jaya. The event started at 7.00 a.m. with the arrival and registration of the participants. This was followed by breakfast. A total of 52 teams registered themselves for the competition. After the registration and breakfast session, the participants were allowed to setup their booths and models.

Once the booths and models were setup, the Opening Ceremony was held at 9.00 a.m. Next on the agenda was the briefing by the Judging Team at 9.15 a.m. More than 50 judges were present to judge the inventions and they mostly comprised of university lecturers, engineers, environment consultants, intellectual property specialist and from other related science fields.

While the judging and cross judging process was on going, Mentor Seminar Session took place at Lecture Theatre 7 from 10.00 a.m. till 12.30 p.m. Mentors attended this seminar session. Below is the agenda of the Mentor Seminar Session:

| Time | Topic of Discussion | Speaker |
|---------------------|---|--|
| 10.00 am – 10.15 am | Introduction to ASTI, YIC | Dr. Mohamed Yunus Yasin, <i>President ASTI</i> |
| 10.15 am – 10.50 am | Yayasan Inovasi Malaysia and Perspectives about Innovation in the Context of Young People | Dr. Othman Omar, <i>Director, Innovation Development and Advancement (IDec), Yayasan Inovasi Malaysia</i> |
| 10.50 am – 11.25 am | Activating Global Experience Among Youth | Ms. Noor Azmaliza Romlee, <i>Manager, Academy of Sciences Malaysia</i> Mr. Nazmi Lao, <i>Programmes Executive, Academy of Sciences Malaysia</i> |
| 11.25 am – 12.00 pm | Getting to know Sunway University | Ms. Cindy Chow Mei Ling, <i>Senior Manager – Events & Outreach Programmes Sunway University</i> |
| 12.00 pm – 12.15 pm | Judging Criteria Explanation | Mr. Faizal Noor Batcha <i>Chief Judge II YIC 2015.</i> |
| 12.15 pm – 12.30 pm | Mentor Sharing Session and Certificate Presentation | Mr. Anandan Shanmugam, <i>Project Director YIC 2015</i> |

Table 1: Agenda of Mentor Seminar Session

At 12.30 p.m., the hall was opened for public viewing. Public were allowed to visit the booths and ask questions to the participants if they had any. Public Viewing session was closed at 3.30 p.m. All the teams that participated were presented with Certificates of Participation by our special guests at their respective booths.

Our Guest of Honour YB Datuk Dr Abu Bakar Bin Mohamad Diah, Deputy Minister of MOSTI, Malaysia arrived at 3.00 p.m. The VIPs who attended the event were Dr. Elizabeth Lee, Senior Executive Director of Sunway Education Group and Sunway University; Ms. Wong Lei Lei, Director of Marketing Sunway Education Group; Ms. Shahira Ahmed Bazari, Managing Director of Yayasan Hasanah; En. Muhamamad Aziph Dato' Mustapha, CEO of Yayasan Inovasi Malaysia; Mr. Maheshvaran Balakrishnan, ASTRO Vaanavil Channel Manager; Mr. Jayaraman Kuppusamy, Deputy President of Perinnbam Malaysia; Dr. Mohamed Yunus bin Mohamed Yasin, President of ASTI; Dr. Subramaniam Gurusamy, Deputy President of ASTI; Mej Dr. Vikneswaran, Treasurer of ASTI; Mr. Anandan Shanmugam, Project Director of YIC 2015; Dr. Ewe Chun Te, Chief Judge I of YIC 2015; Mr. Faizal Noor Batcha, Chief Judge II of YIC 2015 and Mr. Ali Zareh, Managing Director of Start Health.

Ms. Shankaree of ASTRO Vaanavil was the host for the Closing & Prize Giving Ceremony. Before the Prize Giving Ceremony, few of our dignitaries gave their speeches. Dr. Mohamed Yunus Mohamed Yasin was the first dignitary to give his speech. He said that teams that have participated in YIC in the past have gone abroad and won competitions at international level such as in South Korea. He added that this should not be the end and the students should continue with their inventing journey.

After the speech by Dr. Mohamed Yunus Mohamed Yasin, Deputy Minister of MOSTI was invited to give an opening speech on the importance of an innovative society. Tokens of Appreciation were given out to Dr. Elizabeth Lee, Ms. Shahira Ahmed Bazari, Mr. Muhammad Aziph Dato' Mustapha and Mr. Maheswaran Balakrishnan who were the funders for YIC 2015.

Next up was the MoU Signing involving Dr. Mohamed Yunus Mohamed Yasin on behalf of ASTI and Mr. Ali Zareh, Managing Director of Start Health. The MoU was signed to collaborate on healthcare innovative and entrepreneurial ecosystem among the youth in Malaysia. After the MoU Signing, Mr. Anandan gave out Token of Appreciation to YB Datuk Dr Abu Bakar bin Mohamad Diah.

Dr. Ewe Chun Te, chief judge of YIC 2015 was called on stage to give the judging feedback. He said that the judges had a tough time judging the participants. He added that the judging was done based on creativity, innovation, presentation skills and safety features. After that, Mr. Anandan gave his thanking speech and he encouraged the participants to continue their inventive journey. He also thanked everyone involved in YIC 2015, including the volunteers, in making YIC 2015 a success.



The winning teams for Video Log Competition, Project Paper Writing, YIM Inclusive Innovation Award and the Overall Champion were announced. The details of the winning teams are as below:

Winners of Young Inventors Challenge 2015

Grand Finale

Overall Champion

CHAMPION

Team Name : Mad Science
Project Name : Ultra Violaceus Contego
School : SMK USJ 13, Selangor
Prize Given : RM2, 000 + Trophy + Certificate for each participant and Bursary worth of RM100, 000 per team from Sunway University for Pre-University or A-Level Studies



2ND PRIZE WINNER

Team Name : Mosaic Fighters
Project Name : Smart Safety Helmet
School : SMK Sains Muzaffar Shah, Melaka
Prize Given : RM1, 500 + Trophy + Certificate for each participant and Bursary worth of RM75, 000 per team from Sunway University for Pre-University or A-Level Studies



3RD PRIZE WINNER

Team Name : The Kursiah Creature Inventor
Project Name : SPIXHAUST
School : Kolej Tunku Kurshiah, Negeri Sembilan
Prize Given : RM1,000 + Trophy + Certificate for each participant and Bursary worth of RM50,000 per team from Sunway University for Pre-University or A-Level Studies

THE CIRCUS

The electricity flow of our device begins with the Solar panels. Sunlight entering the Solar panels is generated into electricity which flows into rechargeable high voltage batteries which store energy. From these batteries, the electricity flows to the universal socket and USB. Light is situated at the top of the circuit and the device.

CONCLUSION

Electricity plays an important role in the lives of people. A solar powered plugpoint will be very efficient for our country and the planet.

REFERENCES

Annual School Science Exercise Book of Form 5, Pages 1-10

Environmental/energy/solar cell kit

Advantages-disadvantages-solar panel

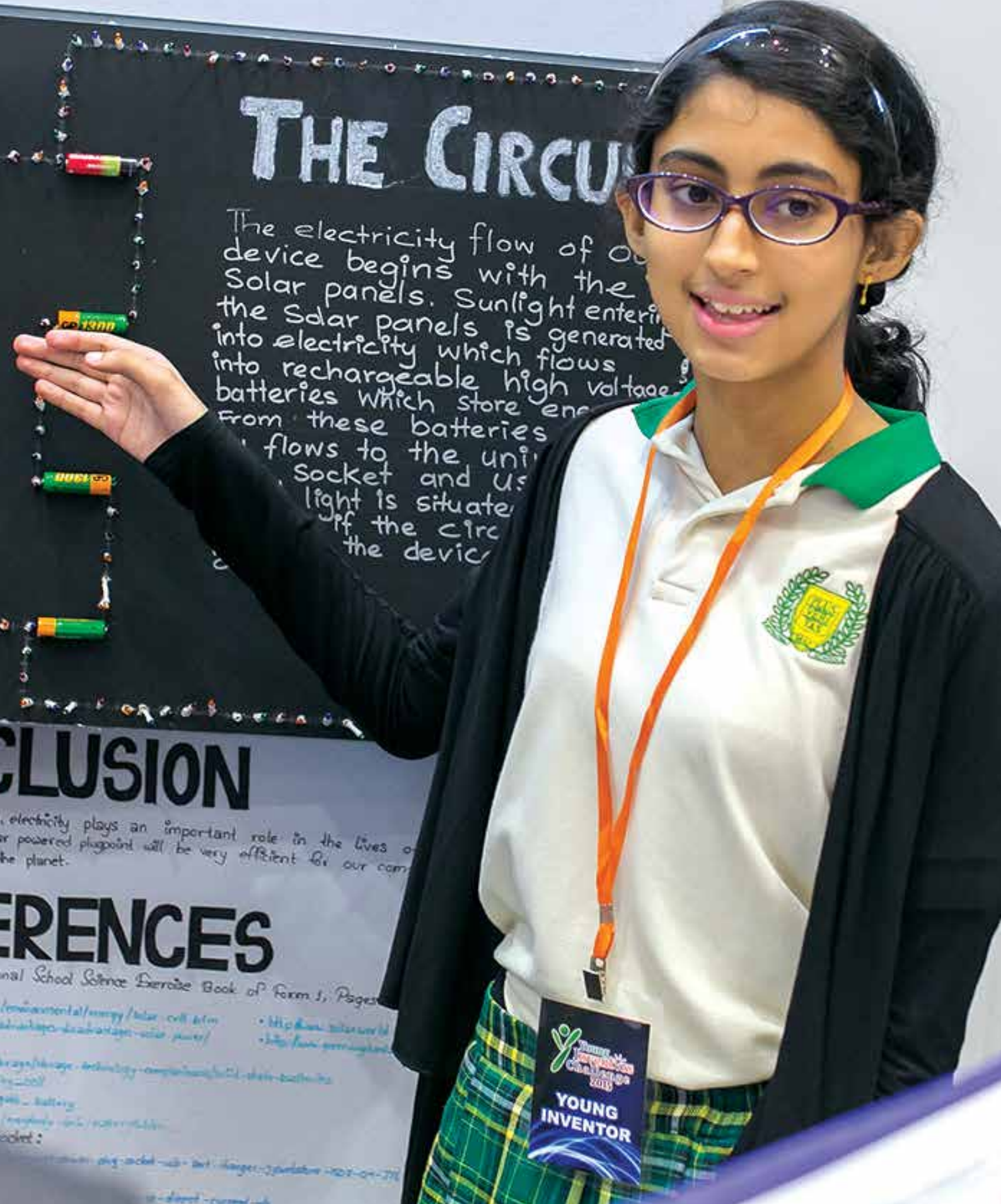
Advantages-disadvantages-solar panel

Advantages-disadvantages-solar panel

Advantages-disadvantages-solar panel

Advantages-disadvantages-solar panel

Advantages-disadvantages-solar panel





4TH PRIZE WINNER

Team Name : Team Alert
 Project Name : The Portable Integrated Medical Kit (PIMK)
 School : School of Science and Technology, Singapore
 Prize Given : RM750 + Trophy + Certificate for each participant and Bursary worth of RM 25,000 per team from Sunway University for Pre-University or A-Level Studies

5TH PRIZE WINNER

Team Name : The Y-Nots
 Project Name : Safe Rattler Toys for Infants
 School : MAZ International School, Selangor
 Prize Given : RM500 + Trophy + Certificate for each participant and Bursary worth of RM 10,000 per team from Sunway University for Pre-University or A-Level Studies

Video Log Competition

The participating teams were requested to come up with a 5 minute video documenting their inventing journey. 21 teams participated in this category by submitting their videos. This Video Log Competition was judged by ASTRO Production Team. The details of the winning teams are as below:

CHAMPION

Team Name : The Y-Nots
 Project Name : Safe Rattler Toys for Infants
 School : MAZ International School, Selangor
 Prize Given : RM500 + Certificates

1ST RUNNER UP

Team Name : Vaaams
 Project Name : Solar powered plug-point
 School : MAZ International School, Selangor
 Prize Given : RM300 + Certificates

2ND RUNNER UP

Team Name : Radical X
 Project Name : Care J Project (Multi-Purpose Bed)
 School : Malay College, Kuala Kangsar, Perak
 Prize Given : RM200 + Certificates





Project Paper Writing Competition

The teams that participated in YIC 2015 were requested to submit a 2 page Project Paper. For this Project Paper, the students were required to write a summary on their inventions. A total of 21 teams submitted their Project Paper for this Project Paper Writing category. The details of the winning teams are as follows:

CHAMPION

Team Name : Archimedes's Amateurs
 Project Name : Reusable Water Purifier System
 School : ELC International School, Selangor
 Prize Given : RM500 + Certificates

1ST RUNNER UP

Team Name : Radical X
 Project Name : Care J Project (Multi-Purpose Bed)
 School : Malay College, Kuala Kangsar, Perak
 Prize Given : RM300 + Certificates

2ND RUNNER UP

Team Name : Mosaic Fighters
 Project Name : Smart Safety Helmet
 School : SMK Sains Muzaffar Shah, Melaka
 Prize Given : RM200 + Certificates





ASTI-YIM Inclusive Innovation Award

In conjunction with YIC 2015, Yayasan Inovasi Malaysia (YIM) and The Association of Science Technology and Innovation (ASTI) introduced a new award called ASTI - YIM Inclusive Innovation Award. Yayasan Inovasi Malaysia agreed to sponsor this award category for the top three winners. We believe that through this programme we can create a platform for young creative and inventive people to showcase their talent and possibly built their career in this area. The details of the winning teams are as follows:

CHAMPION

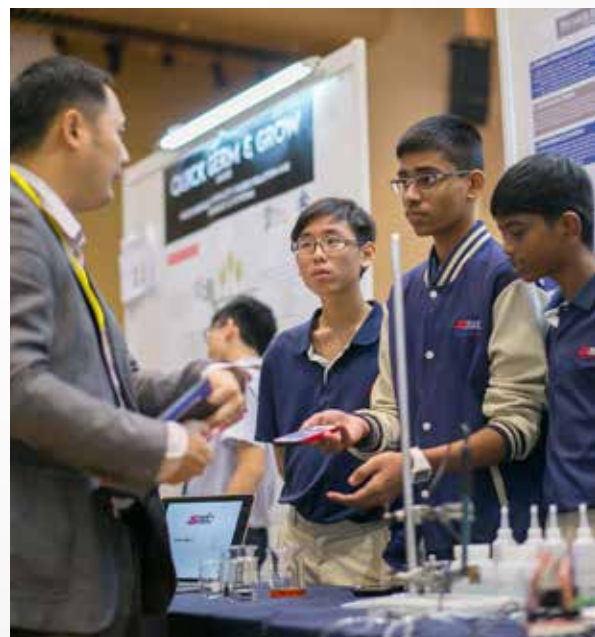
Team Name : **Jaws**
 Project Name : **Portable Mobile Charger (PMC)**
 School : **SMJK Chung Ling**
 Prize Given : **RM 1, 000 + Trophy + Certificates**

1ST RUNNER UP

Team Name : **The Kursiah Creature Inventor**
 Project Name : **SPIXHAUST**
 School : **Kolej Tunku Kurshiah**
 Prize Given : **RM700 + Trophy + Certificates**

2ND RUNNER UP

Team Name : **Future**
 Project Name : **Product Of Rubber Seeds**
 School : **SMK Datuk Bahaman**
 Prize Given : **RM500 + Trophy + Certificates**



3.2.3 Conclusion

YIC 2015 was a huge success. We had attracted multiracial teams from various parts of Malaysia. We received 145 proposals and 63 teams were selected for the grand finale. From the 63 teams selected, 52 teams participated in the Grand Finale.

We believe that this program can be a platform for young creative and inventive students to showcase their talent and possibly build their career in this area.

Kindly refer to the attached CD for the full report of Young Inventors Challenge 2015.









3.3 Creative and Critical Thinking Camp (CCT)

3.3.1 Background





Young people with the modern education system have become spectators rather than participants in their own 'learning futures'. They are overwhelmed with facts and figures in school; they memorize for tests and exams, but soon afterwards they forget. Real education must help to create a creative and critical mind by empowering the learner to take charge of his or her learning. Subjects and topics are mere tools to nurture this new independent thinking mind. Thus any subject in science or arts should be able to create this ultimate goal if 'delivered' properly.

We hope to use this camp to inculcate and introduce the concept of thinking creatively and critically when students make choices in their lives. Both methods of logic and empirical reasoning will be introduced with simple lectures and fun activities. In addition, competitive and collaborative methods of producing an outcome will be explored by the participants.

3.3.2 Objectives of CCT

-  Helping to empower the young to think in both creative and critical manner with presentations and activities to help the young build this capacity.
-  To build effective resources, guides and know-how to make this a recurring camp for young people across the country.
-  Using competitive and collaborative methods to produce positive outcome when the young are making choices.
-  Helping the young to realize that learning can be fun by not just memorizing facts but also by understanding.

3.3.3 Benefits of CCT Camp

-  A medium to introduce the concept of thinking creatively and critically when making choices in life and introducing innovative problem-solving techniques.
-  Participate in exciting workshop sessions under the guidance of skilled facilitators and instructors.
-  Fun outdoor and indoor activities that will help the participant to realize his or her creative and critical thinking capabilities.
-  Use competitive and collaborative methods to produce positive outcome when making choices and performing tasks.

3.3.4 Target Groups and Type of Camps

There will be 3 different target groups:

-  Primary Level
-  Secondary Level
-  University Level

The different types of camps are as below:

1) Project Camp

A student has to send an application to CCT committee and the Committee will choose the participants. A partial scholarship is provided. The facilities such as accommodation & meals will be organised for the participant for 3 days 2 nights.

2) Exclusive Camp

The participants will be chosen by the organizing school/organization with ASTI's agreement. The accommodation & meals will be provided by the organizer of the camp. ASTI will provide camp materials and trainers. Require minimum 35 to maximum 50 participants to proceed.



OWNERSHIP
IF IT IS TO
BE
IT IS UP TO
ME

PLAY
IS THE HIGHEST
FORM
OF RESEARCH

WORDS HAVE
POWER
SO CHOOSE YOUR
THOUGHTS &
WORDS

FOCUS INTENT
ALWAYS START
EVERYTHING
WITH
AN END IN MIND

SMALL GROUP
MEETING
I WANT WAS MY BIGGEST
LEARNING SO FAR.
1. WHAT AM I GOING TO
APPLY IT IN THE LIFE

FROM STRATEGY
TO ACTION PLAN

Handwritten notes on a white sheet of paper, including a diagram with arrows and text.

3.3.5 CCT 2015 Summary

ASTI's CCT Camp 2015 was scheduled to be held in December 2015 in Hulu Langat. Due to bad weather and flood, the camp was cancelled even though prior arrangements were made. But that did not deter ASTI from conducting CCT camps. ASTI staffs and representatives were trainers at camps organised by Malaysian Community & Education Foundation (MCEF). The camps that ASTI was involved in were called CCT - ILHAM.

The Creative and Critical Thinking Camp (CCT) 2015 - ILHAM was a one day event which started in the morning and ended in the evening. These camps were held in 3 different zones namely North, Central and South Zones. Students who participated in the CCT 2015 - ILHAM were Form 1, Form 3 and Form 4 students.

Camps for Form 4 students were held in 3 zones, North, Central and South consecutively. The first camp was organised at AIMST University, Kedah on 19 September 2015 with a number of 55 students participating in the camp. Trainers for the camp were Mr. Jaganath, Ms. Chitra & Ms. Archana. On the next day, the camp was conducted at Virgo Batik Resort, Perak on 20 September 2015. 51 students participated in the camp and the trainers were Mr. Mohammed Hassan & Ms. Noorul Huda. For the Central Zone, the camp was held at Green View Tarun Enterprise, Negeri Sembilan on the following day which was on 21 September 2015. Dr. Yunus Yasin, Ms. Vanitha and Ms. Umahsankariah conducted the Central Zone camp and the number of participants was 114 students. The final camp for Form 4 students was convened at Sri Sakthi Ashram, Johor on 22 September 2015. 106 students participated in the camp. The assigned trainers for the camp were Maj. Dr. Vikneswaran, Ms. Vanitha and Ms. Umahsankariah.

Our next CCT-ILHAM camps were for Form 1 students which were all held in November 2015 in 3 zones, North, Central and South. Two camps were organised on the same day on 24 November 2015. One was held at AIMST University, Kedah and the other one at Sri Sakthi Ashram, Johor. The CCT camp in Kedah was attended by 57 students and the trainers were Maj. Dr. Vikneswaran and Ms. Umahsankariah. For the camp in Johor, 76 students participated in this camp. Dr. Yunus Yasin and Ms. Vanitha were the assigned trainers. And the last camp for Form 1 students was conducted on the next day 25 November 2015 by Ms. Noorul Huda, Ms. Vanitha and Ms. Umahsankariah. A total of 67 students attended the camp. Which was held at Green View Tarun Enterprise, Negeri Sembilan.

The final camp was for Form 3 students which was conducted in December 2015. It started with the camp at AIMST University, Kedah with 64 students attending the camp. Ms. Chitra and Ms. Vanitha conducted the camp on 6 December 2015. Two camps were conducted simultaneously on 9 December 2015 at Virgo Batik Resort, Perak and Sri Sakthi Ashram, Johor. 62 students attended the training in Perak with Dr. Yunus Yasin & Ms. Vanitha as the trainers. Meanwhile, Mr. Manimaran and Ms. Kalai were the trainers in Johor and 73 students took part in the camp. Next was at Green View Tarun Enterprise, Negeri Sembilan on 14 December 2015. A total of 133 students were at the camp while the trainers were Maj. Dr. Vikneswaran & Mr. Jaganath.

Below is the agenda for the one day CCT Camp 2015 - ILHAM:

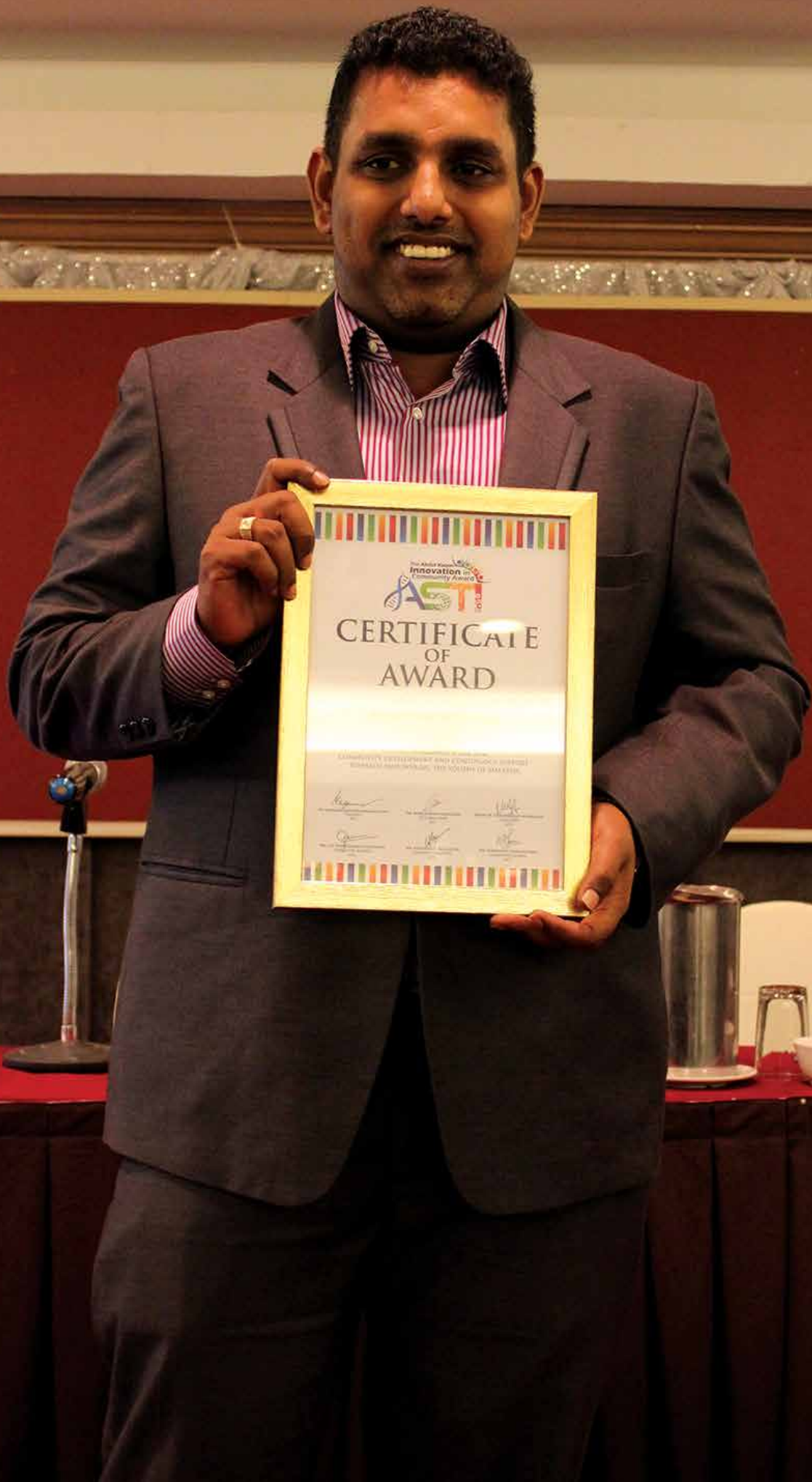
| Time | Itenary |
|-------------------|---|
| 10.00am - 11.00am | Session 1: Boosting Your 5 senses/ Discover Your Self <i>Time: 30min (5min explain 10 min draw 15 min share)</i> |
| 11.00am - 12.30pm | Session 2: Tinker |
| 12.30pm - 1.30pm | Lunch |
| 1.30pm - 2.45 pm | Session 3: Relaxation & Concentration <i>Time: 1 hour 15 Minutes</i> |
| 3.30pm - 4.30pm | Session 4: Creative Thinking in Conversation <i>Time: 1 hour</i> |
| 4.30pm - 6.00pm | Session 5: 5 Reasons Why Humans Are Capable of Genius <i>Time: 1 Hour for 5 Activities, Conducted Parralle as 5 Stations will be Set-Up and also presentation</i> |

3.3.7 Conclusion

The CCT Camp was conducted successfully this year. The following year, we hope to run more camps particularly for secondary levels and University students. However, we hope to explore shorter workshops and seminars as we found more demands for shorter workshops.

Kindly refer to the CD attached for the full report of Creative and Critical Thinking Camp 2015.





The Ashraf Ali Khan
Innovation in
Economy Award
ASTI
2018

**CERTIFICATE
OF
AWARD**

COMMITTEE FOR PROMOTION AND FOSTERING OF RESEARCH AND INNOVATION,
THE SOCIETY OF BANKERS

[Signatures]

3.4 ASTI Innovation In Community Award (ASTI-ICA)

ASTI-ICA is designed to recognise the contributions of an individual or a group of people in doing projects in the community by using Science and/or Technology and/or Innovative methods.




3.4.1 *Background of the Award*

ASTI recognises that great work and change start with simple acts of an individual or groups of individuals. There are rare breed of people who see a problem and do not sit by and let the world dictate to them their future. These are the people who work tirelessly, often not wanting recognition or, in most cases, are not recognised for their work, no matter how amazing they are. These people also use simple and yet innovative methods to do their work. Often some people are able to use their knowledge effectively with minimal funds to be able to make a huge difference in the society.

ASTI, being a group of scientists, engineers, educators, professionals and more, recognises the need to be able to use knowledge effectively when conducting projects in society.



3.4.2 *Objectives*

With the above in mind, ASTI has launched this initiative called "The ASTI Innovation in Community Award, ASTI-ICA". The objectives of this award include:

-  to recognise individuals and/or a group of people (and the community in which they work) who use innovative methods to make a positive difference to the people around them (the community);
-  to highlight these types of work in order to give young people a source of inspiration and role model in hope of inspiring them to be positive changing agents in their community;
-  to avoid already well-known changing agents - but rather focusing on the newer up and coming, yet to be recognised changing agents.

3.4.3 *Method*

ASTI-ICA will be administered by a committee elected by ASTI's Central Committee who would request nominations for the award annually from its networks. The recipient can be from any part of the world. The Committee will deliberate on the nominations received, and the award will be given based on:

-  the impact of the project on the community both horizontally and vertically (horizontal = numbers-quantity, vertical = depth-quality);
-  the innovative methods used in the project carried out by the nominee which include the effective use of resources and knowledge and the level of perseverance to achieve their goal.

3.4.4 *Funding and Budget*

Considering the nature of ASTI being a non-profit organisation, the awards will be presented modestly, with internally generated funds. Each year the quantum amount of the award will be determined by the ASTI Central Committee based on funds generated.

3.4.5 Announcement of the Winner of “Abdul Kalam Innovation in Community Award”

This year ASTI decided to rename the award to “Abdul Kalam Innovation in Community Award” in recognition of the late Dr. APJ Abdul Kalam.

For 2015, the recipient of the award was YB Raven Kumar Krishnasamy. He was given the award for his invaluable work for community development and continuous support towards empowering the youths of Malaysia. We felt honored to present the award to him acknowledging his continuous contribution and commitment to ASTI and its efforts over the years as well as his initiative and contribution to the Indian Community.

YB Raven Kumar Krishnasamy’s Contributions:

- Despite being a full time Johor State Legislative Council Member, he has never failed to fulfil his duties towards the Indian community and society.
- Collaborated with Mersing Indian community to help and develop the Indian society there as well as the Felda community in the constitution of Mersing.
- To ease the process and also to make sure that the help and contribution to the Indian society reaches them without any hindrance, he has launched an organization called “KOMUNITI I MALAYSIA MASYARAKAT INDIA MERSING”. Through this organization he has arranged for Contribution of Academic Excellence, to recognize the Indian academic achievers and to appreciate them.
- Continuous contributions to ASTI and Science Fair for Young Children throughout the years since 2007, when ASTI launched the historical event for the first time.
- Contributed and encouraged schools to participate in National Level Science Fair as well as other related events internationally , where he has sponsored them the travelling as well as the accommodation expenses. These schools who have reached international standard have never failed to make us proud by winning the events and shine as the stars of the show, which was possible due to the contribution by YB Raven.





3.5 ASTI Media Engagement Programmes

3.5.1 Project Promotional Activities

3.5.1.1 Science Fair for Young Children

For Science Fair for Young Children 2015, the Public Relations (PR) Department managed the flow of information between the organisers of the science fair and the general public. Information about the Science Fair for Young Children programme was promoted to the public via press releases and interviews over national radio and television.

The flow of information between internal and external stakeholders was reached through various levels such as the School Level Science Fair, Zone Level Science Fair and the National Level Science Fair. Astro Vaanavil as our official electronic media and Thinakural as our official print media highlighted our event throughout Malaysia. The Public Relations activities carried out to promote the Science Fair for Young Children 2015 are shown below:

1) SFYC Soft Launching

- Science Fair for Young Children 2015 Soft Launching was officiated by Professor Datuk Dr. NS Rajendran, Director of SEDIC & Coordinator of Action Plan for Future of Tamil Schools on 25th March 2015 at ASTI Office, Petaling Jaya.
- The event was broadcasted over RTM TV2 Tamil News.
- The soft launching was also published in Tamil language newspapers such as Malaysia Nanban, Makkal Osai, Thinakural, Tamil Nesan and Thaimoli and national newspaper such as Berita Harian as well.

2) School Level Science Fair 2015

- Press release for School Level Teachers Training in Tamil media newspapers such as Malaysia Nanban, Thinakural, Makkal Osai and etc.
- Promotional Capsule which was sponsored by ASTRO was telecasted over ASTRO Tamil Channels.
- Promotional via SFYC facebook & website.

3) Zone Level Science Fair 2015

- Press release for Zone Level Teachers Training and Zone Level Science Fair by zone coordinators.
- Pamphlets were distributed to the coordinators for them to promote the fair in their respective zones.
- Interview in ASTRO Vaanavil Vizhuthugal attended by Mr. Jayashri Selvendran J Thanapal (Project Director of NSFYC 2015) and Mr. Paary Rajan.
- Interview on Vasantham RTM2 was attended by Dr. Mohamed Yunus Mohamed Yasin.
- Dissemination of information via SFYC & ASTI website.
- Dissemination of information via SFYC & ASTI facebook.



4) National Level Science Fair for Young Children (NSFYC) 2015

- 🌐 Pamphlets were sent to VIPs, funders and all well-wishers to provide information about the NSFYC.
- 🌐 NSFYC 2015 invitations were sent to VVIPs, VIPs, public and private university lectures, funders and well-wishers.
- 🌐 A special invitation was sent to the public to attend the NSFYC 2015.
- 🌐 10 capsules related to science were sponsored by ASTRO and was telecasted over ASTRO Tamil Channels until the National Level Science Fair was held. The capsules' content was developed jointly by SFYC Working Group and ASTI Committee.
- 🌐 A promotional capsule which was sponsored by ASTRO was telecasted over ASTRO Tamil Channels since July 2015.
- 🌐 Dissemination of information via SFYC & ASTI website.
- 🌐 Dissemination of information via SFYC & ASTI facebook.

The project also received wide coverage in newspapers such as Malaysia Nanban, Tamil Nesan, Makkal Osai, Tamil Malar, Thinakural, Thaimoli, News Straits Times, The STAR, Berita Harian and Bernama for the School Level and Zone Level trainings, Zone Level Science Fair and pre and post National Event.

3.5.1.2 Young Inventors Challenge

- 🌐 During the month of January and February 2015, information flyers on YIC 2015 with a cover letter was sent to all secondary schools nationwide. Additionally, we also followed-up through phone calls and "word of mouth" publicity.
- 🌐 In addition Dr. Mohamed Yunus Yasin and Mr. Faizal Noor Batcha attended a Traxx FM interview to promote the event.
- 🌐 Two weeks before the Grand Finale, Dr. Mohamed Yunus Yasin and Dr. Ewe Chun Te attended a BFM Interview to promote and invite the public to visit the event.
- 🌐 During the YIC 2015 Grand Finale, ASTRO 360 covered the event and it was broadcasted on ASTRO Vaanavil later. They interviewed Dr. Mohamed Yunus Yasin and Mr. Anandan Shanmugam during the event.
- 🌐 Dissemination of information via ASTI website & ASTI facebook.
- 🌐 Pamphlets were sent to VIPs, Funders and all well-wishers to provide information about the YIC 2015.
- 🌐 YIC 2015 invitations were sent to VVIPs, VIPs, Guests, Public University and Private University lectures, funders and well-wishers.

3.6 ASTI Learning Futures – ALF



ASTI launched a new initiative called “*ASTI Learning Futures - ALF*” where ASTI will work with partners, both public and private entities to promote, test and conduct innovative ways of learning.

For the first project under ALF, ASTI has signed an MoU with Learning Orchard Sdn. Bhd for a new initiative called Project ‘ALI’ (Advance Learning Initiative) which aims to introduce and invigorate online learning among young people in Malaysia.

The project aims to introduce a specifically designed E-Learning portal called EDUKATE (KATE is an acronym for Knowledge Augmented by Technology in Education) to get Malaysian students to successfully use the internet as an effective tool in their education.

The pilot programme’s objectives are to effectively introduce technology into education, improving students’ mastery of selected subjects that is Maths, Science and English and consequently, improve the students’ performance. This pilot carried out for year 4, 5 and 6 students. This project was tested in SJK(T) Rantau on 22nd July 2015 and SJK(T) Palaniandy, Penang on 14th August 2015 as a pre-pilot project.



3.7 ASTI's Fundraising Dinner

ASTI successfully organized its Fundraising Dinner on the 24th of April 2015 at the Hilton Hotel, Petaling Jaya. The event was graced by Y.B. Datuk Seri Dr. S.Subramaniam, Minister of Health, Malaysia. The event was a gala evening with many new friends made, whom ASTI hopes would be actively involved in our family, untied in our aim to further ASTI's vision and mission.

The Fundraising Dinner provided an excellent opportunity to get together and meet up with likeminded people while contributing to a purposeful and noble cause. The fund raising dinner was conducted to raise fund mostly for ASTI's administration and management needs.

| Contributer | Amount (RM) |
|-------------------------------|-------------------|
| K-Pintar | 10,000.00 |
| Hay Group | 10,000.00 |
| U Learn Technology | 10,000.00 |
| Cubit Pte. Ltd | 10,000.00 |
| EGraduate.Net | 10,000.00 |
| IS-Seraya AVS | 10,000.00 |
| Ara Tech Bis | 5,000.00 |
| Institute Latihan Umax | 5,000.00 |
| NAWEM | 2,000.00 |
| Kolej ASA | 1,500.00 |
| Mr. Alvin, IM foremost | 1,000.00 |
| Mr. Syed Akbar Ali | 100.00 |
| Mr. Vicks Kanagasingam | 1,000.00 |
| NLFCS | 1,000.00 |
| Hay Group | 1,624.00 |
| Dr. Yunus Yasin | 600.00 |
| HRDF | 20,000.00 |
| Knowledgecom | 10,000.00 |
| MKE Resources | 10,000.00 |
| UEM Khazanah | 10,000.00 |
| Prof Tamilselvan | 20,000.00 |
| Corporate Learning Consortium | 3,000.00 |
| Total Contribution | 151,824.00 |



Graced by
Datuk Seri Dr. S. Subramaniam
Minister of Health, Malaysia

24th April
to 11.0
Ballroom
Hilton
1st Floor
No.2



Bank Muamalat

Jalan Tuanku Abd Rahman, Kuala Lumpur 41-14062

TARikh DATE 0 3 0 4 1 5
D D M M Y Y

ATAU PEMBAYAR OR BEARER

RM 50, 000.00***

BAYAR PAY PERTUBAHAN SAINS, TEKNOLOGI DAN INOVASI****

RINGGIT MALAYSIA LIMA PULUH RIBU SAHAJA***

AKAUN PROJEK KHAS PPN WIL PERSEKUTUAN

0003356718 32



3.8 Science Film Festival

3.8.1 Introduction

The Science Film Festival, SFF which was initiated by the Goethe-Institute in Thailand back in 2005 is a celebration of science communication and enjoys a unique position in Southeast Asia, North Africa and the Middle East. The festival selection demonstrates that science can be communicated in an educational, as well as entertaining manner through audio-visual media. The festival has grown considerably, meanwhile becoming the largest event of its kind worldwide in terms of audience reach with more than 580,000 visitors in 11 countries in 2014. By facilitating cooperation between local and international agencies from the scientific, cultural, educational and environmental sector, with the generous support of the international film and television community, an effective infrastructure can be put into place for the dissemination of scientific understanding and access to knowledge. In addition, the festival also offered a platform for intercultural exchange through which different media approaches to the world of knowledge converge.



3.8.2 Science Film Festival 2015

The festival partners in Malaysia are: the Association of Science, Technology and Innovation, the German-Malaysian Institute, the Goethe-Institute, the Malaysian Nature Society and the Ministry of Education and Siemens.

The Opening Ceremony of 5th Science Film Festival in Malaysia was held on 05 November 2015 in Hall 2, GSC Pavilion, Bukit Bintang, Kuala Lumpur from 10am to 12pm. During the launch, three short films were screened and press conference was held. The Winner of Young Inventors Challenge 2015 showcased their invention to the visitors and public.

The Science Film Festival in Malaysia offered an international selection of 20 films from 13 Asian and European countries. It promotes science literacy and facilitates awareness of contemporary scientific, technological and environmental issues through the medium of film and television content. The films will be screened at more than 700 schools and universities nationwide with more than 48,000 expected viewers, mainly young people. Apart from schools there will be showings at GSC and Petrosains in Kuala Lumpur, at the German-Malaysian Institute and at Nature Parks in Kuala Selangor.

In accordance with the International Year of Light 2015, Light was chosen for this year's festival theme. From sunsets to rainbows, from the blues of the sky and the ocean, to the remarkable range of colours of plants and animals, our first experiences of light and colour are through what we see in the natural world. However, the importance of light reaches far beyond life on earth. Light has helped us see and better understand the universe through major scientific discoveries and technological advancements. All over the globe, people are using light to discover solutions for society's most pressing problems. From 3-D printing to bringing energy solutions to developing regions, light is key in driving economies and encouraging development in the 21st Century. It has revolutionized medicine, opened up international communication via the Internet, and continues to be central in linking cultural, economic and political aspects of the global society.

3.8.3 The Collaboration

In conjunction with the Science Film Festival Malaysia 2015 (SFF-MALAYSIA 2015), ASTI was involved in 2 different initiatives organized by the Goethe-Institute. The 2 events were the Opening Ceremony and Distribution of SFF School Packs.

SFF-MALAYSIA 2015 prepared about 200 packs which were then distributed to schools and learning institutions across the country. The packs were made up of 3 DVDs containing 30 films for all ages (including children). The packs also contained other 'goodies' such as SFF MALAYSIA 2015 Booklet, writing/ scribbling pads, etc. ASTI's President was one of the pre-jury team members, who helped to select the films for SFF MALAYSIA 2015. The 30 films were selected from a list of over 80 pre-selected films.

3.9 ASTI Retreat

For the first time, ASTI Committee Members and staff were taken to Bukit Bendera, Penang for a retreat from 18th till 20th December 2015. ASTI's organisation and projects for year 2016 was discussed during the meeting at the retreat. Meeting everyone from ASTI and having discussion outside of the office was something different and refreshing. It was a good opportunity for everyone to bond with each other.

3.10 ASTI Leadership Programme / Internship

3.10.1 SFYC Alumni

The participants of Science Fair for Young Children (SFYC) have been invited to be an Alumni Member of Science Fair for Young Children. Science Fair for Young Children started as a pilot project in 2007 in Selangor and Wilayah Persekutuan. In 2008, we were able to conduct the project throughout the nation on 2 levels, regional and national. Almost 180 schools participated in the first National Science Fair. Since then we have introduced School Level Science Fair and our participants have reached more than 80,000 students per year.

However as much as we wanted to, we have not been able to keep in touch with the students who had participated in SFYC. With this objective in mind, we have decided to start up an alumni group for all those who were part of SFYC in the past.




By becoming a member of SFYC Alumni, we will keep the participants updated with all the latest developments of SFYC as well as interesting news and developments in science, technology and innovation.

3.10.2 Volunteering with ASTI

We are a group of volunteer science enthusiasts, who are trying, through our Association, to bring the excitement of Science, Technology and Innovation to a wider public. In doing so, we require a number of like-minded volunteers to help us with our task. It can be on an ad-hoc or more permanent basis.









The Association has a range of volunteering opportunities available which is explained below:

Professionals





-  Speaker – Public Lectures, University Campus, Multinational
-  Companies - who are able to lend their support via their respective capabilities
-  Training - to teach new knowledge and innovative methods
-  Demonstrations – During road shows and training
-  Writing – website articles, newspaper columns, proposals, etc.
-  Fund raising / Finance - to help keep our projects running
-  Mentoring - to help some of our participants reach greater heights
-  General Volunteer - to help with various tasks and initiatives.

For young students at various levels, we provide training and opportunities to volunteers in:

University Level Science Students

-  Organizing events
-  Producing and realizing innovative ideas
-  Ability to do demonstrations
-  The discipline needed for administration
-  Event participation / support
-  IT / Website / Social Media expertise
-  Mentoring ability
-  The adaptability of a General Volunteer

School Level Science Students

-  IT / Website / Social Media
-  Organizing events
-  Innovative ideas
-  Organizing science week
-  Starting a science club
-  Event participation /support



3.10.3 Internship with ASTI

There is no doubt that interns will reap tremendous benefits during their time with ASTI. Skills cultivated during their training such as leadership, organizational management, interpersonal communication, self-confidence, team work and work ethics rank as equally important as academic credentials and will go a long way to help in their personal and career aims while simultaneously being of great service to their respective universities or organizations.

Objectives Of The Internship

1. Enhance students' educational experience through practical hands-on experience and involvement in projects associated with science, technology and innovation
2. Provide students with supervised practical experience
3. Expose students to the working environment of an NGO focused on science, technology and innovation
4. A better understanding of ASTI's aims and objectives

Functions / Duties And Output Expectations

Under the direct supervision of the relevant ASTI staff or Committee Member, the intern is expected to perform the following tasks:

1. complete a written paper on suggestions to improve the day-to-day working of ASTI
2. provide support to the ASTI committee during seminars, workshops, conferences, and/or any other ASTI-related events where applicable
3. provide daily updates through social media on experience of interning at ASTI and/or on a specific programme they are assigned to

At the end of the internship, the following outputs will be expected:

1. a final report detailing the intern's experience and work assigned in the different ASTI focus areas
2. a report detailing the outcome of the various seminars, workshops or conferences organized or attended (where applicable)





3.11 ASTI Outreach Programme

3.11.1 Science Talk at SJK(T) St. Helier, Negeri Sembilan

A Science Talk was given by Mej. Dr. Vikneswaran Munikanan at SJK St Helier on the 24th of June 2015. The talk was based on Creative and Critical Thinking modules which were "Boosting Your 5 Senses" and "Concentration". The students and teachers enjoyed the session.



3.11.2 Science Camp in SK Taman Cempaka Tampoi, Johor

| | |
|------------|--|
| Programme | : Science Camp 2015 |
| Date | : 18 April 2015 |
| Day / Time | : Saturday / 7.30 am - 1.00 pm |
| Venue | : Dewan SK Taman Cempaka |
| Objectives | :  Give exposure to the students on Science Subject.  Create interest in Science Subject among students  Introduce Scientific Methodology to the Students.  Give opportunity to students to do hands-on experiments |





3.12 Websites and Facebook

ASTI continuously updates its websites and facebook to give real-time information about all of its on-going events and projects. ASTI's websites and Facebook have been promoted heavily since they are used as a mean to disseminate information and stay connected with ASTI's various stakeholders.



3.13 Newsletter


ASTI continues its effort to produce monthly newsletter in order to update its members, stakeholders and friends with recent activities and projects' progress. The newsletter is designed to be read in less than 5 minutes, taking into consideration the busy schedule people lead these days. As of 31 December 2015, ASTI has published 12 newsletters. All the newsletters were emailed to ASTI's contact list and uploaded to ASTI's website and Facebook.

August 2015 Newsletter



HEADLINES:

Former President, Present Teacher, This Month's Project



Life's nature
Like all things which will mature
And as threads will one day rupture
All our action here but a simple gesture

Our life in the universe -
No way back will reverse
The time as it will increase
The vastness of space so diverse

For in the possession only this moment
The past no need to lament
The future not yet to concern
One day of a time we try to live simple and devout

May you reach the highest peak
You have been a role model for all to seek
To find in you attributes of valor for the strong and the weak
Your ever confidence the boost even to the meek

Dear Sir, you may have gone
But with every child born
With the garment of pride always worn
From their heads it will never be torn
And your work we will emulate for every child to remember ...

In This Issue

- Message to A/FJ Dr. Abdul Rahim
- Launching of Project A/I of SIRT Bunkan
- Some Inval Science Hub for Young Children 2015

www.asti.org.my

December 2015 Newsletter



HEADLINES:

The Association of Science Technology and Innovation has launched its Online Contribution System. Visit the link below to get to know more about ASTI's Online Contribution System.

<http://www.asti.org.my/online-contribution>



In This Issue

- Online Contribution
- Congratulations To Dato' CM Vigneswaran A/I Jayaraman
- Online 2014 Reports
- Congratulations to Md. St. Vigneswaran Manikandan
- Achievement of SIRT Ramakrishna, Penang

ASTI would like to Congratulate our committee member and also the Chief Executive of HRDI, CM Vigneswaran, for having been conferred with the Darjah Indera Mahkota Pahang (DIMJ) which carries the title "Dato'" by His Royal Highness Sultan of Pahang, Duli Yang Maha Mulia Sultan Haji Ahmad Shah in November 2015.



www.asti.org.my



10 minutes

Pupils strike gold in S. Korea
Group makes Malia proud with three awards at invention contest



The students who made history at the World Invention Innovation Contest (WIC) held in June 5th and 6th in Seoul, Korea. Three teams participated and of 3 of them won **Gold!** ASTI intends to come up with follow-up programmes for these students. Keep your eye on this space!

11-6-2015 - **மாணவர்களின் சாதனை**



யாழ்ப்பாண அனாபல் தமிழ்ப்பள்ளி மாணவர்கள் சாதனை



www.asti.org.my



Former Science Fair team, students from SJK (T) Ramakrishna made Malaysia proud by claiming victory over 300 contestants for all over the world. They managed to win the first prize of the **33RD ASIAN YOUTH SCIENCE CREATION COMPETITION (AYSCC)** which was held from 26 March 2015 till 31 March 2015 at Beijing, 10th Wide School, Beijing, China.






They participated in National Science Fair for Young Children and were the Champions for Innovation Category in 2013 and 2014, Association of Science, Technology and Innovation - ASTI would like to congratulate the team for their Achievements. May they be an inspiration to us all.

Young inventors spurred on by success




www.asti.org.my






4




















ASTI RESEARCH AND DEVELOPMENT

ASTI Research and Development Department is headed by Dr. Mohamed Yunus Yasin. This year, the Research and Development Department has successfully prepared the following documents:

1) YIC 2015

-  YIC 2015 Students Manual
-  YIC 2015 Mentor Manual
-  YIC 2015 Training Presentations



2) CCTC 2015

-  Module on Ice-Breaking
-  Module on 5 Reasons Why Humans Are Capable of Genius
-  Module on Healthy Body and Healthy Mind
-  Module on Boosting Your 5 Senses
-  Module on Problem-Solving (CSI)
-  Module on The Movie and Review
-  Module on Mind Mapping & Brainstorming
-  Module on Relaxation & Concentration
-  Module on WHO AM I & Understanding Stories
-  Module on Boosting Your 10 Intelligences
-  Module on Lateral Thinking
-  Module on Creativity & Expressing Your Creativity
-  Module on Short-Term Memory Tips
-  Module on Living Earth
-  Module on Discover Yourself - Form 1
-  Module on Critical Thinking in Conversation Secondary
-  Module on Living Earth - Secondary
-  Module on Understanding- Secondary
-  Module on Tinkering - Form 1&3

3) Various Reports of ASTI

-  Science Fair for Young Children Report 2015
-  Young Inventors Challenge 2015
-  Creative and Critical Thinking Camp 2015
-  Science Fair for Young Children Research and Development Report 2015 Phases 1-3

4) Various Publicity Materials

-  Monthly Newsletter
-  Science Fair For Young Children Capsules

5

ACCOMPLISHMENTS & RECOGNITIONS

In 2015, ASTI successfully organized three major projects which were Science Fair for Young Children, Young Inventors Challenge, and Creative & Critical Workshops.

Besides that, ASTI was engaged with the public through the Outreach Programme and Media Engagement Programme.

ASTI has also been collaborating with various Non-Governmental Organizations in order to successfully run its projects.

The overall participations of schools in Science Fair for Young Children and Young Inventors Challenge have shown continuous growth and more students are benefitting from these events.

The winners of Science Fair for Young Children and Young Inventors Challenge have then participated in various National and International Competitions and won prizes.

5.1 Accomplishments of Science Fair for Young Children

The progress of Science Fair over the last 9 years is as follows:

| Year | Zones | No. of Schools Participated in SLSF | No. of Schools Participated in ZLSF | No. of Schools Participated in NSFYC |
|------|---------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| 2007 | Selangor and Wilayah Persekutuan Only | None | 44 | None |
| 2008 | National Level (6 Zones) | None | 180 | 60 |
| 2009 | National Level (6 Zones) | Pilot in Johor (70) | 188 | 60 |
| 2010 | National Level (9 Zones) | 82 | 263 | 60 |
| 2011 | National Level (9 Zones) | 256 | 274 | 60 |
| 2012 | National Level (9 Zones) | 365 | 269 | 60 |
| 2013 | National Level (9 Zones) | 423 | 282 | 60 |
| 2014 | National Level (9 Zones) | 338 | 261 | 54 |
| 2015 | National Level (9 Zones) | 327 | 221 | 60 |

In addition to the above, the winners of National Level Science Fair for Young Children have participated in various competitions and shown tremendous presentation during their participation in the various competitions

Below are the competitions in which they have participated:

Excellent Youth Science Creation Program, Beijing, China

SJK(T) Ramakrishna students won First prize in the Excellent Youth Science Creation Programme at Beijing, China. They participated in National Science Fair for Young Children (NSFYC) and they were the Champion for the Innovation Category in 2013 and 2014.



ITEX 2015

SJK(T) Ramakrishna won two Gold Medal for Malaysia Young Inventors Exhibition and Asian Young Inventors Exhibition and their also received Best Invention Award for Primary School. SJK(T) Yahya Awal won two Bronze Medal for Malaysia Young Inventors Exhibition and Asian Young Inventors Exhibition.



World Invention Innovation Contest (WIC), Seoul

Nine pupils from SJK (T) Yahya Awal received a grand welcome from their schoolmates after clinching three gold awards at this international invention competition held in South Korea. The students also created history as it is the first time that a school from Malaysia has clinched the awards in the World Invention Innovation Contest (WIC) . This competition was held on June 5th and 6th in Seoul.



Semi grand award for multifacilities table from World Inventors Association in South Korea

Hong Kong International Innovation Competition, Hong Kong

SJK(T) Ramakrishna who won 6 international awards and a gold medal from among 40 international teams participating at Hong Kong International innovation competition.

They were the only school that won 6 International Awards, which were:

1. Hong Kong Special Awards by Hong Kong International Students Innovative Invention Contest (2015-2016)
2. Highest Standard of Excellence Award by INNOVA Special Award, Indonesia
3. Leading Innovation Award by Macao Innovation and Invention Association
4. Star Award for the Best International Invention by Yayasan Pendidikan and Pengajaran Indonesia, YPPI Indonesia
5. Honour of Invention Award by World Invention Intellectual Property Association, WIIPA
6. Gold Medal for Hong Kong International Students Innovative Invention Contest (2015-2016)



National Level Open Science Innovation-(Malaysian Open) Competition

SJK(T) Ladang Kuala Muda Bhg. Home, won silver Medal and Jury Awards on National Level Open Science Innovation-(Malaysian Open) competition held for 2 days at Perda City Mall Bukit Mertajam, Perai Penang from 29th -30th August 2015. From the total of 104 schools participated, only 1 Tamil school has been finalized. ASTI would like to congratulate the kids for their achievements.



Kuala Lumpur Engineering Science Fair

Five teams from SJK(T) Jalan Yahya Awal, took part in Kuala Lumpur Engineering Science Fair from 30 Oct - 1st Nov and won bronze in student's category for their innovation, High Precision Calorimeter. About 200 teams participated in this fair.



International Invention, Innovation and Design Competition 2015, Johor

Three teams from SJK(T) Jalan Yahya Awal, one from SJK(T) Taman Tun Aminah, one from SJK(T) Kulai Besar and one from SJK(T) Kangkar Pulai participated in the International Invention, Innovation and Design Competition 2015 at Aman Sari Resort, Bandar Seri Alam, Johor. SJK(T) Kangkar Pulai won gold and SJK(T) Jalan Yahya Awal won two silver and one bronze medal in this competition.



Achievements of Tamil Schools through Science Fair for Young Children

| Competition | Award Won | School | Invention |
|--|---|-----------------------|--|
| Genius Olympiad 2012 International High School Project Fair on Environment, New York. | Bronze Medal | SJKT Kulim | Neighbours Wonder, an alarm system |
| Invention, Innovation & Design, Johor, 2013 | Gold Medal | SJKT Kangkar Pulai | Invents Water Recycle |
| Pertandingan Inovasi Sempena Hari Guru Peringkat Negeri Johor | Silver Medal | SJKT Kangkar Pulai | Invents Water Recycle |
| Pertandingan Inovatif Zon Timur, Kementerian Sains, Teknologi dan Inovatif (MOSTI), 2013 | Overall Category Winner | SJKT Mentakab | Missiles Launcher (Newton's Third Law) |
| Asian Young Inventors Exhibition (AYIE), 2014 | Gold Medal | SJKT Ramakrishna | Eco-friendly Thermo Container |
| Asian Young Inventors Exhibition (AYIE), 2014 | Silver Medal | SJKT Jalan Yahya Awal | Twin Aquest Bottle |
| Malaysia Young Inventors Exhibition (MYIE), 2014 | Gold Medal | SJKT Ramakrishna | Eco-friendly Thermo Container |
| Malaysia Young Inventors Competition (MYIC), 2014 | Champion Award (Primary Level) | SJKT Ramakrishna | Eco-friendly Thermo Container |
| Malaysia Young Inventors Competition (MYIC), 2014 | Gold Medal | SJKT Jalan Yahya Awal | Twin Aquest Bottle |
| International Invention, Innovation and Design, UITM Johor, 2014 | Silver Medal | SJKT Kangkar Pulai | Bio-Organic Fertilizer |
| Science Innovative Camp, USM Penang, 2014 | Champion Award (Primary & Secondary school category, State Level) | SJKT Ramakrishna | Noise Reducer |
| E-scosa Competition, USM Penang, 2014 | Best Post Award (Secondary school category, State Level) | SJKT Ramakrishna | Eco-friendly Thermo Container |
| International Convention and Innovation (UTM), 2014 | Bronze Medal & Silver Medal | SJKT Kangkar Pulai | Bio-Organic Fertilizer & Robotic Football Player |
| British Invention Show (BIS) 2014, London | Double Gold Award | SJK(T) Kulim | Energy-Saving Machine Dispensing Drinks |
| International Science Olympiad Exam, 2014 | Bronze Medal & Merit Award | SJK(T) Kangkar Pulai | |
| Johor Biotech Innovation, 2014 | Participation Award | SJK(T) Kangkar Pulai | |

5.2 Accomplishments for Young Inventors Challenge



In 2013 we had 18 application and 12 team participated in YIC pilot. YIC has seen a phenomenal growth in the last 3 years. The growth of YIC is shown in the table and graphs below:

| State | YIC 2014 | | | | YIC 2015 | | | |
|-----------------|-----------------------|--------------------|-------------------|--------------------|-----------------------|--------------------|-------------------|--------------------|
| | Applications Received | Proposals Received | Shortlisted Teams | Final Participants | Applications Received | Proposals Received | Shortlisted Teams | Final Participants |
| Kedah | 4 | 4 | 0 | 0 | 11 | 4 | 1 | 0 |
| Penang | 13 | 11 | 7 | 5 | 16 | 13 | 7 | 5 |
| Perak | 2 | 3 | 1 | 1 | 7 | 2 | 2 | 2 |
| Selangor | 40 | 32 | 21 | 19 | 56 | 52 | 22 | 21 |
| Negeri Sembilan | 2 | 2 | 2 | 2 | 6 | 5 | 2 | 2 |
| Melaka | 1 | 1 | 0 | 0 | 6 | 5 | 1 | 1 |
| Johor | 38 | 23 | 6 | 6 | 5 | 4 | 3 | 3 |
| Pahang | 29 | 16 | 5 | 5 | 27 | 17 | 6 | 4 |
| Kelantan | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 1 |
| W.P. Putrajaya | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 |
| W.P. Labuan | 4 | 1 | 1 | 1 | 4 | 2 | 0 | 0 |
| Sabah | 6 | 4 | 3 | 3 | 10 | 4 | 2 | 1 |
| Sarawak | 13 | 10 | 7 | 5 | 19 | 15 | 9 | 6 |
| Kuala Lumpur | 0 | 0 | 0 | 0 | 7 | 7 | 1 | 1 |
| Terengganu | 0 | 0 | 0 | 0 | 12 | 10 | 4 | 4 |
| Singapore | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| TOTAL | 156 | 111 | 56 | 49 | 191 | 145 | 63 | 52 |

Table 3: YIC 2014 and YIC 2015 Growth

Graph Showing Comparison for 2013, 2014 and 2015

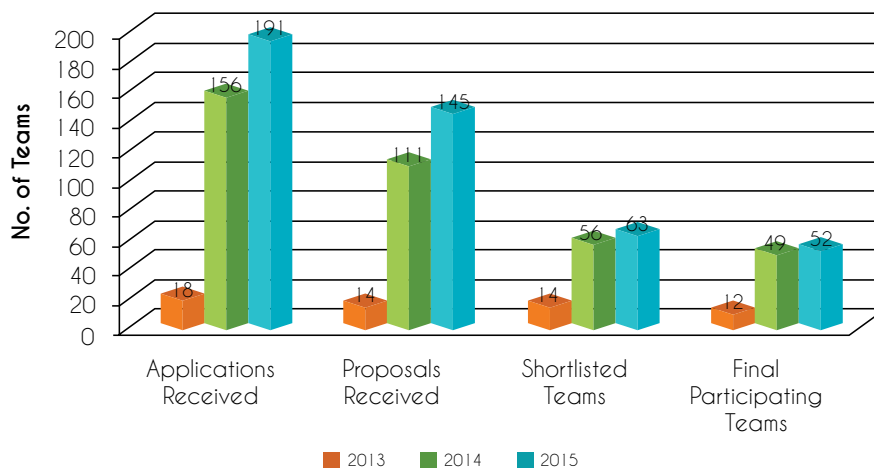


Figure 1: Comparison for YIC for the last 3 years (2013, 2014 and 2015)

Application Received by State for YIC 2015

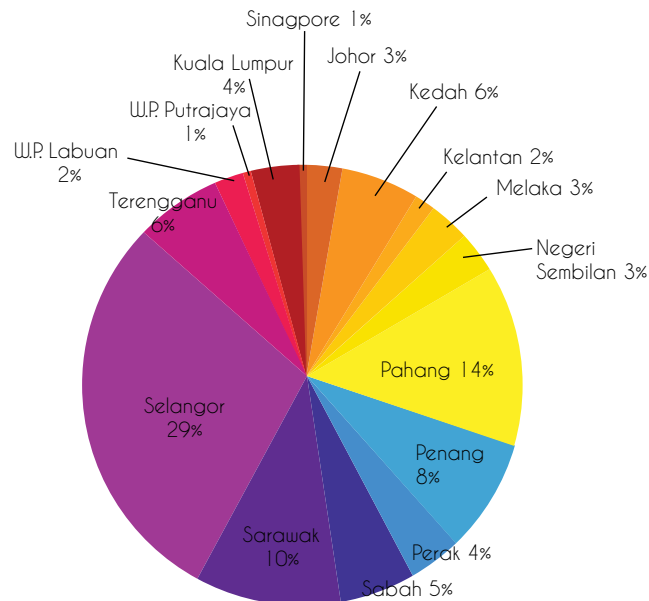


Figure 2: Applications Received by State for YIC 2015



The 1st Runner-Up of Young Inventors Challenge 2013 has participated in **International Invention, Innovation and Technology Exhibition (ITEX)**. Won **Silver Medal** in the categories of both **Malaysia Young Inventors Competition (MYIC)** and **Asian Young Inventors Exhibition (AYIE)**.



The Champion of YIC 2014 has participated and **won Silver Medal** in **Malaysian Technology Expo** which was held on 12th - 14th February 2015 at Putra World Trade Centre.



The 1st Runner-up of Young Inventors Challenge 2013 has participated in **World Invention Innovation Contest (WIC) 2015** in Korea and **Won Gold Medal** for their invention on **Agro Pot**.

5.3 Recognitions

Outstanding Service in the Community Award


Dr. Mohamed Yunus Yasin was the recipient of the "Outstanding Service in the Community Award" during the 5th Year Celebration of Yayasan myNadi by our Prime Minister, Datuk Seri Najib Razak.



ASTRO Uruthunai Award

Dr. Mohamed Yunus Yasin was awarded the ASTRO Uruthunai Award in appreciation for his dedication and commitments in supporting the community at the International Indian Trade Expo which was held at GM Klang Mall Wholesale City, Klang on 3rd October 2015.





Yayasan Hasanah 6th Funders' Roundtable Meeting

ASTI was invited to participate in Yayasan Hasanah 6th Funders' Roundtable Meeting where some of the funders, corporates, NGOs and agencies got together for networking and learn about various initiatives.

ASTI was invited to share about initiatives with the hope that ASTI may be able to further the reach and gather more supports through this platform.

The meeting's details were as below:

Date : 27 October 2015 (Tuesday)

Time : 9.30am - 11.30am

Venue : Innovation Centre, Level 26, Khazanah Nasional Berhad, Mercu UEM,
Jalan Stesen Sentral 5, KL Sentral, 50470 Kuala Lumpur.

star2



2015

The People's Yearbook

What was 2015 like for you? Were you plagued by terrible news? Or did you find the perseverance to keep going amidst the corruption scandals, typhoid outbreaks, and ecological disasters of flood and haze? In this year-end special, we take a look at the individuals who didn't let the bad news triumph. Instead, in their own small ways, they have been agents of change, of inspiration and ambition. And they have made a difference.

STEM-ing a huge impact

Meet the man who drove local Tamil schools' change in attitude towards Science and Mathematics.

By REBECCA RAJAENDRAM
star2@thestar.com.my

It all started during a storeroom spring-cleaning session and finding an old book from his primary school years.

Now, Association of Science, Technology and Innovation's (Asti) main man and president Dr Mohamed Yunus Mohamed Yasin, 44, is still seen by many as the one who drove local Tamil schools' change in attitude towards Science and Mathematics.

"I came across a Year Four book on backyard science which shows you how to do science experiments using normal, everyday items," he said while casually leaning back in his chair at the unassuming Asti office in Taman SEA, Petaling Jaya, Selangor.

He said that particular book and its contents became the basis of his first project to help local schools get more involved in Science, Technology, Engineering and Mathematics (STEM).

That project was The Young Scientific Explorer (YSE), launched in 2001 in nine schools with 40 pupils per school.

"That book was also what got me interested in science back when I was a child," he added.

"It's also very hands-on. A lot of people find science scary because the first thing they see is memorising equations and theories."

stung his PhD in chemical engineering in the University of Cambridge, Britain, in 1998.

In his fourth year, together with some friends, he started tutoring school students in the nearby district of Arbury.

"It was one of the worst performing school districts in Britain and a group of us thought why not we just give tuition on the weekends," he said, adding that they were teaching O-Levels Mathematics, Physics and Chemistry.

He said he didn't realise that this little project he chose to do in his free time could have such a major impact.

Why?

Well, when Dr Mohamed Yunus returned to visit Cambridge in 2012, he discovered that there are now Cambridge societies that reach out to the community and teach school students.

Not only that, Arbury is now one of the top performing school districts in England.

"It just goes to show that you may not know the impact that you can have on a person," he added.

Although he had a good job in Khazanah Nasional Bhd when he returned to Malaysia - he helped start three Government-linked Companies (GLCs) - he left because he wanted more free time.

"I wanted to do community work in education because I think education is something I find important and am passionate about," he added.

However, Dr Mohamed Yunus still freelances as a consultant.

Asti's first focus was on Tamil schools because he was appalled at the condition of these schools when he first visited them.

A friend of his who worked at the Tamil Foundation asked him to help come up with a way to assist these schools and bring them up to par.

By the end of 2003, YSE proved to be a big hit and Dr Mohamed Yunus, together with more friends, came up with the idea for a school-level science fair.

These science fairs, he explained, had the pupils performing and explaining guided experiments to a team of judges.

Response was, once again, overwhelming and, to take it up a notch, the Asti Science Fair for Young Children (SFYC) was born.

SFYC was first held in 2006 with 49 teams but it quickly grew to 261 teams at the state level last year.

The national level had the top 60 teams from the states competing.

"In SFYC, they will come up with an experiment using a scientific method, then they will present it to the audience. They get to experience being a science university student," said Dr Mohamed Yunus.

He added that although the invention itself is important, the inventors and their personalities matter more.

"We feel that once we have created the inventor, we have built their confidence."

That, he said, is the aim of these science fairs.

The success of the science fair soon got Asti considering opening up to secondary schools.

Last year, they launched the Young Inventors Challenge that aims to provide a platform for secondary school students to experience the inventive cycle.

Students are required to develop and showcase their inventions to an audience.

Schools were given manuals in both English and Tamil to prepare and conduct these science fairs.

"Interestingly enough, Pemandu used our SFYC as a case study before suggesting the recently launched Dual Language Programme," he added.

"Science can be used to both teach critical thinking skills and improve language," he pointed out.

Although he refuses to admit it, Asti definitely played a part in catapulting Malaysia's Tamil schools into the international arena where they have been winning multiple STEM-based science competitions.



Photo: ART CHEMISTRE Star

He said under YSE, volunteers would go to schools and demonstrate simple science experiments to pique the students' interest. As YSE received a lot of positive feedback, this drove him to do more.

Believe it or not, Dr Mohamed Yunus said the organisation, Asti, was only formed in 2010. This was almost a decade after he first started championing STEM in Malaysian Tamil schools.

Asti is an NGO that aims to mentor and spark an interest in science among school students, especially Tamil school pupils.

He first caught a glimpse of helping the unfortunate through his father who was actively involved in helping rubber estate workers back in the early 1970s.

Dr Mohamed Yunus said he really sank his teeth into helping the underserved while pur-



Science can be used to both teach critical thinking skills and improve language



6

ADMINISTRATION AND FINANCE

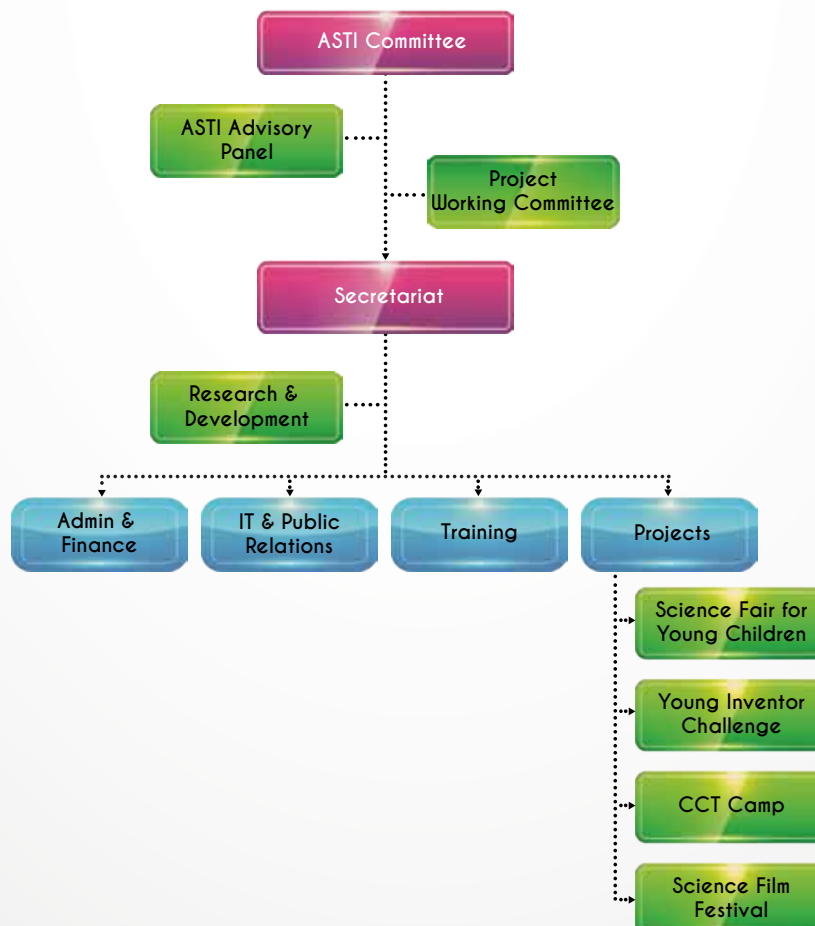
6.1 Administration

6.1.1 Premise

ASTI's office is located at **No. 16A, Jalan 21/12, Sea Park, 46300 Petaling Jaya, Selangor Darul Ehsan**. ASTI rents the premise on a monthly basis, renewable yearly. To ensure ASTI has a fixed place of administration, the rental is usually paid one (1) year in advance. This also enables ASTI to have a good relationship with the landlord. In addition, ASTI pays the utility bills monthly. All repairs are paid for by the landlord.

6.1.2 Staff

In 2015, there were three full-time staff who worked on various projects such as Science Fair for Young Children, Young Inventors Challenge, Creative and Critical Thinking Camp, ASTI Media Engagement Programme, Science Film Festival, and many more projects. ASTI organisational chart below:



6.2 Finance

The financial statements have been prepared in accordance with the historical cost convention and comply with applicable approved accounting standards in Malaysia.

| Balance Sheet as at 31st October, 2015 | | | |
|---|-----------|--------------------------|--------------------------|
| Assets | Notes | 2015 (RM) | 2014 (RM) |
| Non- current assets | | | |
| Property, Plant and Equipment | 3 (e) & 4 | 3,191.40 | 5,399.20 |
| Current assets | | | |
| Other Receivables | 5 | 4,500.00 | 7,136.47 |
| Deposits & Prepayments | | 300.00 | 300.00 |
| Cash and Bank Balance | 3(d) | 105,670.34 | 14,992.79 |
| | | <u>110,470.34</u> | <u>22,429.26</u> |
| Total assets | | <u>114,389.74</u> | <u>27,828.46</u> |
| Represented by: | | | |
| Accumulated Funds | | | |
| Accumulated Funds b/f (Deficit) / Surplus For the Year | | (199,484.79) | 51,377.07 |
| Accumulated Funds c/f | | <u>48,958.67</u> | <u>(250,861.83)</u> |
| | | <u>(150,526.09)</u> | <u>(199,484.76)</u> |
| Current liabilities | | | |
| Other Payables | 3(c)&7 | 5,285.67 | 3,900.00 |
| Amount due to NSFYC | | 259,630.16 | 223,413.22 |
| | | <u>264,915.83</u> | <u>227,313.22</u> |
| Total liabilities | | <u>264,915.83</u> | <u>227,313.22</u> |
| Total Funds and Liabilities | | <u>114,389.74</u> | <u>27,828.46</u> |

*The annexed notes from an integral part on the Accounts.

**STATEMENT OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED 31ST OCTOBER 2015**

| INCOME | Notes | 2015 (RM) | 2014 (RM) |
|---------------------------------------|----------|--------------------------|----------------------------|
| Income | 3(a) & 6 | 479,039.00 | 449,940.00 |
| TOTAL INCOME | | <u>479,039.00</u> | <u>449,940.00</u> |
| LESS : EXPENDITURE | | | |
| Accounting Fee | | 2,250.00 | 2,400.00 |
| Article Translation | | 1,531.60 | 3,617.60 |
| Accommodation | | 7,951.10 | 12,745.45 |
| Advertisement and Promotion | | 170.00 | - |
| Design | | 7,730.00 | 29,248.60 |
| Website | | 3,400.00 | 1,180.00 |
| Audit Fee | | 1,500.00 | 1,500.00 |
| Professional Fee | | 2,268.00 | - |
| Bank Charges | | 116.30 | 100.00 |
| Booth Set Up | | 15,487.60 | 12,650.00 |
| Car Rental | | 1,000.00 | 150.00 |
| Cleaning Services | | 2,400.00 | 2,300.00 |
| Depreciation | | 3,479.80 | 2,679.80 |
| Donation | 4 | 1,667.28 | - |
| Electricity and Water | | 3,950.65 | 4,239.02 |
| EPF & SOCSO | | 28,375.40 | 30,955.00 |
| Launching & Fund Raising | | 22,480.00 | 3,555.00 |
| Insurance | | 5,112.00 | 7,236.00 |
| Internet Charges | | 2,550.00 | 3,600.00 |
| Honorium Expenses | | 4,400.00 | 4,970.00 |
| Volunteer Appreciation | | 3,748.80 | 3,445.00 |
| Postage, Courier & Stamping | | 12,418.49 | - |
| Event Venue Rental | | 400.00 | 20,439.00 |
| Photography and Video | | 4,790.00 | 1,600.00 |
| Scholarship | | - | 1,800.00 |
| Printing & Stationery | | 23,468.47 | 18,755.00 |
| Staff Salaries and Allowance | | 100,551.25 | 114,045.96 |
| Staff Rewards | | 15,946.70 | - |
| SFYC Project Expenses(Perak & Melaka) | | 22,306.00 | 280,980.00 |
| YIC Project Expenses | | 54,881.52 | 61,970.00 |
| CCT Project Expenses | | 11,408.45 | - |
| Video and Photography | | 4,790.00 | - |
| Prizes & Souvenirs | | 10,800.00 | 12,985.00 |
| Rental | | 18,000.00 | 18,000.00 |
| Training | | 4,260.00 | 16,910.60 |
| Upkeep of Computer | | 1,590.00 | 7,590.00 |
| Telephone | | 4,934.65 | 5,650.00 |
| Travelling & Transportation | | 8,016.32 | 13,504.80 |
| Medical Fee | | 158.00 | - |
| Other Expenses | | 8,845.95 | - |
| Repair and Maintenance | | 946.00 | - |
| TOTAL EXPENDITURE | | <u>430,080.33</u> | <u>700,801.83</u> |
| EXCESS OF INCOME / EXPENDITURE | | <u>48,958.67</u> | <u>(250,861.83)</u> |
| INCOME AND EXPENDITURE ACCOUNT | | | |
| Total Income | | 479,039.00 | 449,940.00 |
| Total Expenditure | | 430,080.33 | 700,801.83 |
| (Deficit) / Surplus | | 48,958.67 | (250,861.83) |

The annexed notes form an integral part on the Accounts.

7

FUTURE PROJECTS

Besides continuous improvement and expansion of its current projects, ASTI hopes:

- to partner with more organizations in order to develop more innovative projects for young kids
- to run a teachers conference to upskill our teachers and to support them in any areas we are able to



*Fund Raising Dinner 2014 - Hilton P.J.

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APPRECIATION

Finally, the ASTI Committee expresses its profound gratitude to everyone who has contributed in different ways towards the success of ASTI and its projects. We hope to continue to work with all relevant stakeholders to achieve our aims and objectives.





ASSOCIATION OF SCIENCE, TECHNOLOGY & INNOVATION

Contribution Form

| | | | | |
|--|----------|----------------------|-------------|----|
| <input type="checkbox"/> School Level Science Fair | RM 450 X | <input type="text"/> | Per School | RM |
| <input type="checkbox"/> Zone Level Science Fair | RM 300 X | <input type="text"/> | Per School | RM |
| <input type="checkbox"/> National Level Science Fair | RM 450 X | <input type="text"/> | Per School | RM |
| <input type="checkbox"/> Young Inventors Challenge (YIC) | RM 300 X | <input type="text"/> | Per Team | RM |
| <input type="checkbox"/> Creative & Critical Thinking Camp (CCT) | RM 500 X | <input type="text"/> | Per Student | RM |

~~~~~  
 RM 5,000       RM 10,000       RM 15,000       RM 20,000

Name of Donor : \_\_\_\_\_

Organization : \_\_\_\_\_

Contact Person : \_\_\_\_\_

Address : \_\_\_\_\_  
\_\_\_\_\_

Tel. No: \_\_\_\_\_ Fax: \_\_\_\_\_

H/P No: \_\_\_\_\_ Email: \_\_\_\_\_

Cheque :  Cheque No.:

in favour of

**PERTUBUHAN SAINS, TEKNOLOGI DAN INOVASI**

(No. Pendaftaran : PPM-012-10-25102012)

**CIMB Account No. : 800 271 0841**

\*Note: to receive an official Receipt, please fax this donation form & bank slip to 03 7877 8571

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

[www.asti.org.my](http://www.asti.org.my)

