ASSOCIATION OF SCIENCE, TECHNOLOGY & INNOVATION

ANNUAL REPORT

2013

ANNUAL REPORT

ASTI Annual Report 2013

Compiled by:
ASTI Committee

Design, Layout & Editing:
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Content

President
Dr. Mohamed Yunus Mohamed Yasin

Message from *the* President

ASTI is one year old. We started it based in the success of one project that we have been running for the past 8 years, Science Fair for Young Children. It showed to us the need for such activities for the young, particularly those from disadvantaged and rural communities. It thought us to the redefined the word 'disadvantaged'. We found that all are capable of achieving the highest level of achievement provided the opportunities are given and the motivation bestowed.

We use the word bestowed as a substance with a 2-way flow. We provide the motivation to the child and the child provide the motivation for us to continue. Thus ASTI's main target, its purpose of existence, its incentive for action, its stimulus for growth, it rationale for decisions, its strength for being, it drive that keeps it going and its survival from extinction are all for the child. Her/His dreams and aspirations to be a better person, to one day be part of a better community. This is one thing that the founding members have little or no doubt whatsoever and engraved in our hearts deep and sure.

Since our inception, we have started 4 other projects to achieve our aim; namely The Young Inventors Challenge (YIC), The Creative and Critical Thinking Camp (CCT), The 'Arivom Ariviyal' initiative, and the ASTI outreach program. This is part of an initiative which we hope to serve our main target group from the youngest of age to young adults. We hope to be part of their learning experience and in doing so we hope to be positive change agents for our community, nation and humanity as a whole.

The following year, we hope to strengthen our internal structure and processes as well as our projects. We also aim to serve all our stakeholders; the headmasters, the teachers, the volunteers and the scientist in a better way to achieve are goals in a more meaningful and holistic manner. Thus most of any new project this year will focus on these matters. We hope that you would take this journey with us. This is an open invitation.

01 Introduction

The **Association of Science Technology and Innovation** (ASTI) is an association of educators, scientists, industry representatives and individuals who are committed to advancing the role of the scientific community in inspiring the youth of the nation to join and excel in the world of science. The members aim to revolutionalise 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 are also seeking to mentor and encourage youth to seek new innovative methods and technologies that will enhance the understanding and learning of the sciences. ASTI also tries to use Science Technology and Innovation for the advancement of mankind and protection of the environment that nourishes us all. ASTI also believes that STI are part of the wider realm of knowledge such as art, history, languages and others.

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

1.1 ASTI Vision Statement

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

1.2 ASTI 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 generation, dissemination, and exchange of information and services.

1.3 ASTI Objectives

- To stimulate the discovery, application, and dissemination of knowledge.
- To create an atmosphere in which various segments of the science 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 that are able to develop and help creativity, invention and innovative results in science, technology and innovation.
- To recognize outstanding personal achievement in science, technology and innovation within the community.
- To sponsor programs for challenging and developing youth for leadership responsibilities.
- To undertake projects that contributes 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 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 youth to be innovative in reaching their full potential.

Honesty and Integrity
We demonstrate integrity every day by practicing 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 to ensuring that everyone is treated with dignity and respect, and that 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 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.

02 Structure & Organization

2.1 Membership

ASTI's total membership as of 31 December 2013 was 10 people and 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.

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

Members:
1) Mr. CM Vignaesvaran Jeyandran
2) Mr. Nadaraja C. Kalimathu
3) Mr. Saravanan Vimalanathan
4) Mr. Anandan Shanmugam

2.3 Honorary Auditors

1) Mr. Mohan Sankaran

As required by the Constitution, the auditors have dutifully examined ASTI's annual accounts for the Financial Year 2012/2013 and approved them.

2.4 Advisory Panel

ASTI's advisory panel consists of the following members:

Honorary Advisor
YB Datuk Dr.Abu Bakar Bin Mohamad Diah
(Deputy Minister of MOSTI)

Advisory Panel
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) Prof. Sithi Vinayagam
7) Dr. Shanmuga Siva
8) Dr. Ettikan Karuppiah
9) Mr. Sathish Ramachandran
10) Mr. Suresh Thiru
11) Mr.Ve. Elanjelian
12) Mr. Velu Perumal
13) Mr.Naidu Appanan
14) Mr.S.T. Rubaneswaran
15) Mr.Thiagaraja S.Rengasamy
16) Mr. Mohan Menon
17) Captain Surendran Menon
18) Mr. Shanmugam VKS

03 Programmes & Activities

3.1 Science Fair for Young Children (SFYC)

3.1.1 Background

Science is the systematic study of nature and there is much knowledge to be gained and while scientific facts are important, if the methods employed to discover or learn them are incomplete it could hamper scientific progress, for both the individual and the community. Students learn science with greater interest when it is more 'hands-on' or experimental, whereby they are led on a path of discovering scientific truths as they seek to satisfy their curiosity.

Recognizing this, Science Fair for Young Children was set up in 2007. Science Fairs are ideal as they give students an opportunity to learn a scientific concept in greater depth, while simultaneously allowing them to:

- Use scientific methods to develop an understanding of scientific skills;
- Take an open and creative approach to problem solving;
- To create/increase awareness, interest, motivation in the study of Science in School
- Sharpen their writing skills and their ability to work in a team, to plan and execute tasks;
- Develop their soft skills as public speaking, which they present projects to schoolmates and judges;
- Improvement of their own learning process in critical thinking based on experience and project
- Compete and be recognised for academic achievement -- the judging process also provides students with the invaluable experience of developing poise and thinking on their feet.

Since it began, SFYC has shown a tremendous increase in participation and its shown in **figure 1**:

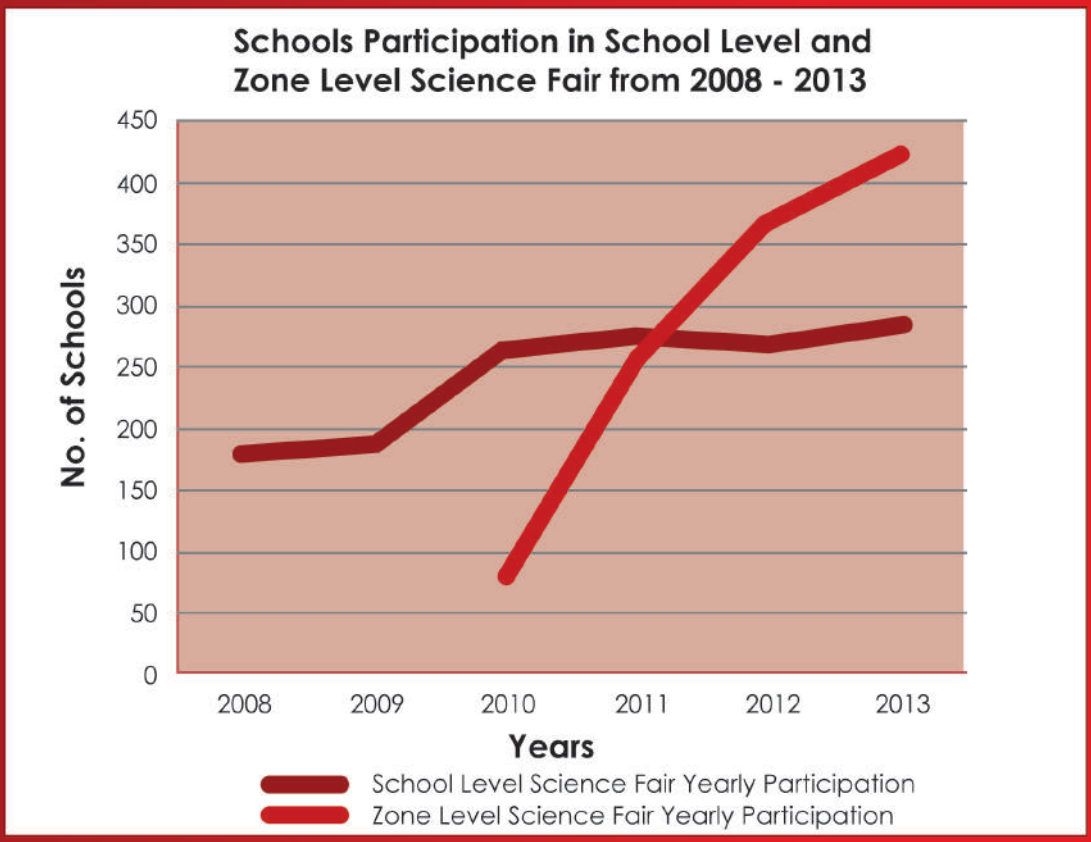

***Figure 1**: Schools participation in School Level and Zone Level Science Fair from 2008 - 2013.*

In 2013, 282 schools participated in the zone level science fair in 9 states. The national event of 2011 to 2013 was held at the German-Malaysian Institute (GMI) with 60 top teams taking part.

The non-profit organisations involved in the SFYC have been jointly organising the event successfully since 2007. We have also diligently recorded the challenges faced along the way, and have developed handbooks or guidebooks for all the stakeholders. This knowledge-base is contained in the SFYC Folder. The folder is a key tool for the organisers, teachers, students, parents, facilitators and judges.

As the SFYC is a partnership project, we confer with all the various partners to enquire about their interest in joining the programme, and their ability to contribute towards the SFYC's success. After the NGO partners have been brought on-board, the SFYC Advisory Council, which sets the policy and makes the key decisions with regards to SFYC, will hand over the project implementation for the particular year to the newly formed Working Group. The Working Group Committee will be implemented the programme for the year in question.

All participating teams are judged by a team of individuals with a strong science background and they must follow the judge's manual to accurately evaluate a project's merit. The best 60 schools from the states are selected and invited to participate at the National Science Fair for Young Children.

Milestones for SFYC 2013

To be the premier Malaysian Association for the promotion of education and understanding in scientific knowledge, Technological advancement and Innovational projects in both Malaysia and the world.

Milestones of SFYC 2013 (October 2012-October 2013)	
Item	**Time Frame**
SFYC 2013 Workshop	Oct-2012
Identify Partner NGO and State Coordinators	Oct-2012 to Nov-2012
Form SFYC Working Group Committee	Nov-2012
Develop Detailed Implementation Plan for SFYC 2013	Nov-2012
Train the Coordinators on conducting State Level Science Fairs	Dec-2012
State Level Resources, Materials & Experiment Review & Finalization	Nov-2012 to Jan-2013
State Level Training & Workshop for Teachers	Feb-2013 to Mar-2013
State Level Science Fairs	Apr-2013 to May-2013
National Level Science Fair	Jun-2013
Postmortem of SFYC 2014	Jul-2013 to Aug-2013
SFYC 2013 Final Report Preparation	Aug-2013 to Oct-2013

As in previous years, SFYC 2013 was implemented as a multi-party collaboration involving national and regional non-profit organisations with the "Association of Science, Technology & Innovation" (ASTI) spearheading the programme.

ASTI was the SFYC secretariat with the Advisory Council of Science Fair for Young Children overseeing its implementation. The key partner organisations of SFYC 2013 was the Malaysian Community & Education Foundation (MCEF), Putera MIC, Majlis Guru-Guru Besar Sekolah-Sekolah Tamil Kebangsaan, Development of Human Resources in Rural Areas (DHRRA Malaysia), Majlis Guru Besar SJKT Negeri Sembilan, Pertubuhan Kebajikan dan Amal India Baru Malaysia (Perinnbam), Pertubuhan Graduan Belia India (Youth MC) and other supporting organizations such as Astro Vaanavil and Malaysian Nanban was our media partners.

3.1.2 The National Science Fair Event

The National Science Fair for Young Children 2013 was a three day event which started on Friday evening and ended on Sunday evening. The details of the event are as follows:

Date
19th July 2013 – 21st July 2013

Venue for Accommodation
Kolej Pendeta Za'ba,
Universiti Kebangsaan Malaysia(UKM)
Hotel Reko Inn, Kajang

Venue for Science Fair Event
Dewan Gemilang Mercu Idaman,
German Malaysian Institute (GMI), Bangi, Selangor.

A special team was formed two months earlier by the Working Group Committee to organise the 3 days National Science Fair for Young Children 2013. The event committee was led by Ms.Umahsankariah Muthunaikar. 13 departments were formed and the tasks were delegated to each Head of Department (HOD). The list of HODs is shown in Table 1 below. The NSFYC was helped by more than 75 volunteers from UNITEN and included Zone volunteers assigned by the Zone Coordinator.

No	Name	Department/Position
1	Mr.Vignaesvaran Jayendran	Project Director and Advisor for Event Committee
2	Ms.Umahsankariah Muthunaikar	Head of Event Committee
3	Ms.Vanitha Vasu	Event Committee Assistant
4	Ms.Eesvari Sawndran	Head of Accommodation Department
5	Ms.Gunasundari	Head of Registration Department
6	Mr.Kugeneswaran Tamilmany	Head of Press Management
7	Ms.Vijia Letchumy Rajoo	Head of Judging Department
8	Ms.Thinaheswary	Head of Conference Paper Department
9	Ms.Archana	Head of Stage and Prize Management
10	Mr.Tilagan	Head of Food and Beverages Department
11	Mr.Noorul Huda	Head of Games and Quizzes Department
12	Mr.Jegatheswaran	Head of Crowd Management
13	Mr.Thirunaugarasan	Head of Media Management
14	Ms.Kalaimathi	Head of Ushering Department
15	Mr.Vikneswaran	Head of Facilitators and Volunteers Management
16	Mr.Saktivel	Head of Hall Management
17	Mr.Sharvin Rao	Head of Traffic, Transportation and Security Department

Table 1.1: List of Head of Departments for the National Science Fair for Young Children 2013

The event was coordinated effortlessly by all the volunteers and organised very well. The teams were well coordinated by the Head of Event Committee and all the HODs.

The events of the 3 days were as follows:

Day 1(19 July 2013-Friday)

The participants and teachers arrived with specially chartered bus from across the country. After their arrival, the participants and teachers were given a briefing on the rules and regulations of the event. Meanwhile, the log book and report book were collected for judging. They were also checked-in to their accommodation in UKM. The participants were also given 2 hours after dinner to set-up their respective booths. Facilitators were present to provide help during this period. During this period the judging process was well underway with the judges evaluating the log-books and report book of the teams.

Day 2(20 July 2013-Saturday)

After breakfast, the students and teachers allowed to the booth for any 'touch up' until 8.30am. Then,the teachers were asked to leave the hall and the students were involved in hands-on experiments for 1 ½ hours followed by the judging evaluation at the team's respective booths. The judging evaluation took nearly 3 hours.

Meanwhile, the teachers were involved in activities such as discussion sessions with the organising team, motivational talk, sharing sessions and Judging Department briefing. Lunch was served from 12.00 noon to 1.00pm. The students continued with the judging evaluation. After the session, the teachers were given a set of books for the school, certificates and pen drives as a token of appreciation.

In the afternoon, the opening ceremony was held in the Dewan Gemilang Mercu Idaman, German Malaysian Institute (GMI) and it was officiated by YB Datuk Seri Dr. S.Subramaniam, Minister of Health, Malaysia. YB Datuk launched the new challenge trophy of National Science Fair for Young Children. YB Datuk Seri Dr.S.Subramaniam visited all the 60 booths and the students were very happy with his presence. This was a great motivation for our young scientist.

The participants were given refreshments from 4pm to 5pm and returned to UKM to prepare for the Conference Paper Presentation session. The participants were then brought to GMI and dinner was served at 7.00pm, followed by the Conference Paper Presentation which was held in three different lecture halls at the German Malaysian Institute as 3 parallel sessions. The top three teams from each zone presented their research and findings from their experiments. A total of 18 teams participated in this section and the top 2 teams from 6 groups were selected for a VIVA session on the following day.

Day 3(21 July 2013 -Sunday)
The day started at 7am, where all the participants checked out from hostel at UKM and reached GMI. After breakfast, the participants prepared for the public viewing at 9.00am. Meanwhile the viva session was held at a Auditorium at GMI for the selected top 6 teams. After completing their viva, they returned to the main hall.

The public viewing officially started at 10.00am and went on until 3.00pm. During the session, a few booths were set-up at the entrance by partners and other organisations. Among them were the Science Fair for Young Children, Association of Science, Technology & Innovation (ASTI), VijayaRatnam Foundation, DHRRA Malaysia, Perinnbam, Grolier Books and National Transplant Resource Centre. The Games and Quizzes Department conducted various games and quizzes for the public.

At the same time, there was a National SFYC Forum for all the Tamil School's Ministry Special Officers and Tamil School's Headmasters Councils Heads and the SFYC Zone Coordinators. This special forum was held in Puri Pujangga, Universiti Kebangsaan Malaysia (UKM) from 10am to 1pm. The forum was chaired by the Science Fair Advisory Board and the organising team.

At 3.30pm, the closing ceremony began and ended at 5.30pm. The guest of honour for the closing ceremony was YB Kamalanathan, Deputy Minister of Education and Higher Learning II. All the participants were given medals, science related books and certificates of participation. The list of NSFYC 2013 winners is as follows:

NSFYC 2013 Winners

1. SJK (T) Convent Seremban 2, Negeri Sembilan
2. SJK (T) Bandar Springhill, Negeri Sembilan
3. SJK (T) Jalan Sialang, Johor
4. SJK (T) Jalan Yahya Awal, Johor
5. SJK (T) Bukit Mertajam, Pulau Pinang
6. SJK (T) Ladang Wellesley, Kedah
7. SJK (T) Alor Gajah, Melaka
8. SJK (T) Ramakrishna, Pulau Pinang
9. SJK (T) Kulai Besar, Johor
10. SJK (T) Air Manis, Johor

Innovation Category

1. SJK (T) Ramakrishna, Pulau Pinang
2. SJK (T) Jalan Sialang Tangkak, Johor
3. SJK (T) Vageesar, Selangor

Conference Paper Presentation

1. SJK (T) Mentakab, Pahang
2. SJK (T) Ladang Wellesley, Kedah
3. SJK (T) Ladang Lanchang, Pahang

** Kindly refer to attached CD for full report and Financial Statement of Science Fair for Young Children 2013.*


Perinnbam
INDIAN
STUDENT MOVEMENT
TROPHY

3.2 Young Inventors Challenge(YIC)

3.2.1 Background

As a follow-on programme to the SFYC to cater for older children, a competition at a more advanced level for the Alumni was proposed in the form of the Young Inventors Challenge (YIC). It requires teams of up to 5 Alumni each to put their minds together and come up with an invention under the Young Inventors Challenge (YIC) theme "Green Inventions: Ideas On Sustainability". A total of 12 teams from across the country participated in the pilot project, showcasing their 'green' inventions.

Research has shown that inventing will:

- Stimulate and foster creativity.
- Enhance self-image.
- Develop the essential skills of logical thinking, creative problem solving, intellectual risk-taking, and communication.
- Relate the scientific method to real life.
- Spark the inventive spirit in our culture.

AIMS & OBJECTIVES

Among the main aims and objectives of YIC are:

- To give an opportunity to young inventors to develop and showcase their inventions in the area of sustainability.
- To help Young inventors to experience the inventive cycle, from conceptualisation to product/prototype.
- To introduce the concept of sustainability to the participants
- To give opportunities to young adults who are inventive to promote their ideas to the outside world.

By participating in YIC it was hoped that the participants would:

- Produce an original invention and receive recognition for participating in the event.
- Develop creative and innovative thinking skills.
- Develop teamwork dynamics to solve problems.
- Use resources such as the internet and library to hone their research skills.
- Learn to document their invention project.
- Enhance self-esteem.
- Acquire public presentation and writing skills.

TARGET GROUP

- Young people aged between 13 to 20
- A team of up to 5 young people
- SFYC Alumni

MODE OF IMPLEMENTATION

- Information flyers were distributed to the teachers during the Zone Level SFYC 2013 Teachers Training workshop and the teachers were briefed on YIC. We requested the teachers to promote YIC to their ex-students who had participated in the Science Fair in previous years.

- Interested students were required to form their teams with at least one Mentor, come up with a basic idea for their invention, and send ASTI a proposal of their idea. They were guided by a "Students Manual" that was prepared by the Working Group Committee.

- A total of 19 proposals were initially received, which was then shortlisted to14. All the 14 teams were invited to participate in an "invention" workshop session which was conducted in University Malaya. The workshop was organized to guide the teams in their efforts and answer any questions they may have. The trainers and their topics were:

    * Presentation on 'Understanding Design and its Creative Processes' by Mr. Velu Perumal
    * Presentation on 'Judging Criteria' by Mr. Velu Perumal.
    * Presentation on 'Sustainability and the Environment' by Dr. Mohamed Yunus Yasin.
    * Presentation on 'Better Proposal Writing' by Mr. Anandan Shanmugam.
    * Examples of 'Innovation Project Case Studies' by Mr. Anandan Shanmugam
    * Presentation on 'Basics of Intellectual Property' by Mr. Naidu Appanan.
    * Presentation on 'Flow of the Competition' by Ms. Vanitha and Q & A with emphasis on how the teams can improve their inventions.

- After the workshop 12 teams proceeded on to a post workshop.

- Post-workshop guidance by the Working Group Committee was via phone conversations and emails to resolve problems faced by the teams.

- The teams were then required to finalise their inventions and send in an Invention Report, which was forwarded to the judges for an early review of the inventions and also to grade the "invention report" which was part of the scoring system.

- The teams were also encouraged to send in their 5-minute video on their invention journey for the separate Video Log Competition, to be judged by a production expert from ASTRO and a design and multimedia expert.

- On the event day the teams who produced the top three winning videos were presented with cash prizes and certificates. The judging for the Video Log Competition was independent and did not have any bearing on the main YIC competition. A total of 12 video logs were received.

- On the event day the teams were required to exhibit their inventions, to be judged by the judging team. The top three winning teams were awarded a trophy, cash prizes and a certificate for each team member. The champions also received a revolving challenge trophy.

3.2.2 Event Day Summary

The YIC 2013 started with the arrival, registration and checking-in of the participants on the eve of the event, 23 August 2013 (Friday), 7pm onwards at the event venue, Wisma Belia, Kuala Lumpur. After dinner, the participants adjourned to the event hall for a short briefing on the programme for the following day and a short presentation by Joota.

Joota is a Malaysian initiative that aims to build a web-based community, like Facebook, but content-orientated, based on subjects of mutual interests among users.

Next day, 24th August at 7am, all teams started setting up their booths. At 9am there was a short opening ceremony. Then the floor was officially handed over to the judging team. The inventions were judged by a team of about 20 judges made up of university lecturers, engineers, environment consultants, intellectual property specialist, etc.

Following the judging the hall was opened for public viewing and at around 2.30pm our guest of honour YB Datuk Dr. Abu Bakar Bin Mohamad Diah, Deputy Minister, Ministry of Science, Technology and Innovation (MOSTI) viewed the exhibits.

Mr Arend Zwartjes, Cultural Affairs Officer from the Embassy of the United States of America, Prof Kurunathan Ratnavelu, Timbalan Naib Cancellor, University Malaya, Datuk Tharumah Rajah, Managing Director, Asia/ Africa of Hay Group and Ms Sujitra Jayaseelan, Head of Vijayaratnam Foundation were among the VIPs who also visited and officiated at the event.

After viewing the exhibits the guest of honour YB Datuk Dr Abu Bakar officiated the Prize Giving Ceremony and presented prizes to the winning teams. A trophy, cash prize and certificate were presented to each winning team member. The champions also received a revolving YIC Challenge Trophy. The Winners of the Video Log were also announced and presented with their prizes at this time.


TO BE
SOLVED
Young
P. YUGESWARAN
WARNING!

WINNERS OF YOUNG INVENTORS CHALLENGE 2013

Champion team:
GREEN WORLD SAVERS
Invention title:
WASHING MACHINE WATER PURIFICATOR
State:
JOHOR

1st Runner-Up team:
GARDEN FRIEND
Invention title:
4R AGRO POT
State:
JOHOR

2nd Runner-Up team:
THE SALVAGERS
Invention title:
AUTOMATED WASTE SORTER
State:
NEGERI SEMBILAN

WINNER OF YIC VIDEO LOG COMPETITION 2013

Champion team:
GREEN WORLD SAVERS
Invention title:
WASHING MACHINE WATER PURIFICATOR
State:
JOHOR

1st Runner-Up team:
ALPHA INNOVATION
Invention title:
PORTABLE AIR FILTER
State:
SELANGOR

2nd Runner-Up team:
3rd GREEN THINKERS
Invention title:
S2YD AGRICAR
State:
PENANG

** Kindly refer to attached CD for full report and Financial Statement of Young Inventors Challenge 2013.*


Young
Inventors
Challenge
2013 Final


Young
Inventors
Challenge
2013 Final
Date
24th August 2013,
Saturday
Time
11.00 am to 4.30 pm

3.3 Creative and Critical Thinking Camp (CCT)

3.3.1 Background

Young people with the education system today have become spectators rather than participants in their own 'learning futures'. This is done, for instance by overwhelming them with the subject - facts and figures which they memorize for tests and exams and soon forget after the fact! It should be argued that real education must help create a creative and critical mind by empowering the learner to take charge of his/her education. Subjects and Topics are mere tools to nurture this new independent thinking mind. Thus any subject in science or arts is 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 making choices in their lives. Both methods of logic and empirical reasoning was introduced with simple lectures and fun activities. Also competitive and collaborative methods of producing an outcome was be explored by the participants. We charged the participants a minimal of RM300 to cover some of the cost of the program. We also provided scholarships to 2 deserving students from Rumah Tunas Harapan.

Objectives of CCT

- The Camp is focused on helping to empower the young to think in both a creative and critical manner. It consists of presentations and activities to help the young and youth build this capacity.
- We hope to build effective resources, guides, and know-how to make this a reccurring camp for young people across the country.

Target Group

Ideally, there will be 3 different Levels of Camp target groups. Namely, Primary Standard Six, Secondary School and University Students.

As a starting point we held a pre-pilot program for 36 young students at a primary level who have just completed their UPSR. We ran the program at the end of November 2013. It was an all inclusive 3-day 2-night event. The incredibly positive feedback we received and organizational lessons learnt have helped us prepare for a larger and longer camp of 4 days and 3 nights to be held in 2014.

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- The Camp is focused on helping to empower the young to think in both a creative and critical manner. It consists of presentations and activities to help the young and youth build this capacity.
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Mode of implementation

The Implementation Steps for the project is as follows:

ASTI appointed two Project Directors and they in turn formed their Project Working Group to oversee and be responsible for the delivery of the project. ASTI remained responsible for the development of the overall policy of the project/program.

The Project Working Group:

- Worked together with ASTI to identify funders and partners for the project
- Formed a Content Development team
- Developed the content and modules for the program (copyright for the event content is owned by ASTI)
- Identified and trained volunteers
- Identified the venue and determined the logistics for the event
- Ran the event
- Conducted a postmortem after the event and identified ways to improve the program
- Dissolved and passed the project back to ASTI until the next CCT Project Directors appointed.

Content Development :

- Each member of the team was allocated their respective areas to develop based on their expertise and subject knowledge
- The overall camp programme, the daily events and the individual sessions were established to ensure a proper content flow
- The individuals responsible carried out research on their allotted areas.
- The individual session content was created
- Presenters and facilitators were allocated to conduct the sessions and present the required content
- The Content Development team worked with the Working Group to bring all areas together to create the Camp

Participant Selection Process:

- Flyers were prepared and sent out to all Tamil schools PIBG heads
- Telephone calls were made to selected schools headmasters and teachers to inform them of the project
- Application forms were prepared and posted on the ASTI website for downloading and sent to schools PIBGs.
- Application forms received were vetted for qualification and participants were chosen.
- Selected participants were sent acceptance letters and informed of mode of payment.
- Confirmed participants paid fees and signed waiver form
- Programme Booklet and various other necessary information was sent to participants
- Participants arrival

3.3.2 Event Day Summary

The pre-pilot project, Creative and Critical Thinking Camp (CCT) 2013 was a three day event which started on Friday afternoon and ended on Sunday afternoon. The details of the camp are as below;

Date: 29 November – 1 December 2013 (3 days 2 nights)
Venue: De Palma Hotel, Kuala Selangor.

The first day of CCT 2013 started with the arrival and registration of the participants which was on 29 November 2013 (Friday), from 12.30pm onwards at the event venue, De Palma Hotel, Kuala Selangor. During the registration, all the students received their tag, T-shirt and goodie bag. The participants were then involved in simple activities after the registration which was prepared for the early comers and then followed by a short briefing on the programme for the following day. The participants then adjourned to the hall as the programme started sharp at 3.00pm. All the participants were seated according to their pre-designated grouping.

There was an ice breaking session conducted for the participants which was to set the tone for the camp. This starter allowed the participants to immediately think out of the box from the very start and provided with a taste of what was to come.

The participants were than involved in many indoor activities in the form of group presentations which was delivered in the first six sessions such as, 5 Reasons Why Humans Are Capable of Genius, Healthy Body and Healthy Mind, Boosting Your 5 Senses, Problem Solving (CSI) and The showing of the Croods Movie followed by a Review. After the last sessions, all the participants had their supper and adjourned to their rooms while, the Event Committee continued with the preparation for the following day.

On the second day, 30 November 2013 at 6.45am, all the participants were involved in the morning exercise which was facilitated by Mejar Dr.Vikneswaran. After breakfast, all the participants gathered at the field for the photography session. They then adjourned to the hall for the following sessions, which includes relaxation methods, speed reading, mind mapping and harnessing thought power and concentration. After lunch, the session continued with a simple warm up game followed by sessions such as creativity, "WHO AM I?" book reading (Understanding Yourself- Empathy for Others) and Boosting Your 10 Intelligences.

After the tea break around 4.30pm, the participants gathered at the foyer and got on attain arranged to go to Bukit Melawati and the Kuala Selangor Aquarium to observe and understand the environment. A session was also held on the aquarium to discuss what they had seen.

After dinner, sessions such as Lateral Thinking, CSI: The Verdict and Expressing Your Creativity was conducted. Finally the participants were given dance-cards to develop thier own dance based on the card they received based on the music of "What does the Fox Say". The participants had a lot of fun during this session. The participants then adjourned to their rooms after having supper around 10.30pm.

On 1 December 2013, at 8.00am, all the participants met at the cafeteria for breakfast after the morning exercise.

Then, the sessions continued after a small warm up game and ended around 11.30am. The sessions on the final day were Brainstorming, Short Term Memory Tips and Who Am I? The hall was opened for the public especially to parents for the closing ceremony of the camp. Each team was presented prizes for different categories such as Best Team, Good Team Work, High Score Team and etc. A certificate of participation was also presented to each participant. At the end of the CCT Camp, all the participants were given a group photo as a souvenir.

**Kindly refer to CD for full report and financial Statement of Creative and Critical Thinking Camp 2013.*


www.asti.org

3.4 Media Statements, Articles and Media Interviews

ASTRO also played an effective role in promoting ASTI activities such as the Young Inventors Challenge (YIC) by airing promotional videos on ASTRO Vaanavil during the week prior to the event. Dr. Mohamed Yunus Mohamed Yasin and Mr. Anandan Shanmugam were also interviewed live on the ASTRO Vaanavil Vizhuthugal show. During the YIC event day, ASTRO 360 covered the full event and there was a broadcast on ASTRO Vaanavil. All the winning teams, parents, mentors, and organizers were also interviewed by ASTRO 360.

Information about the Science Fair for Young Children programme was promoted to the public via press releases and interviews over national radio and television. Astro Vaanavil as our official electronic media and Nanban as our official print media highlighted our event throughout Malaysia
The Public Relations activities carried out to promote the Science Fair for Young Children 2013 is shown below:

1) Launching and Fundraising

- Launching and Fundraising Dinner officiated by YB P. Kamalanathan, Hulu Selangor MP, on behalf of Human Resources Minister Datuk Seri Dr.S. Subramaniam on 28 February 2013 at Wisma Peladang, Kuala Lumpur.
- The Launching and Fund Raising Dinner was broadcast over RTM TV 2 News on 1 March 2013.
- The Launching and Fundraising Dinner was broadcast over ASTRO Vaanavil 360`.
- It also appeared to national newspapers such as NSTP.

2) School Level Science Fair 2013

- Press release for School Level Teachers Training.
- Promotional Capsule which was sponsored by ASTRO was telecast over ASTRO Tamil Channels.
- Interview in ASTRO Vaanavil Vizhuthugal attended by Major Dr.Vikneswaran Munikanan, the advisor for SFYC.
- Various school Science Fair were featured in newspapers such as Malaysia Nanban and Thinakural.

3) Zone Level Science Fair 2013

- Press release for Zone Level Teachers Training and Zone Level Science Fair by zone.
- Pamphlets were distributed to the coordinators for them to promote the Fair in their respective zones.
- Mr.Anandan Shanmugam & Ms.Umahsankariah Muthunaikar interviewed on ASTRO Vaanavil Vizhuthugal.
- Various school Science Fair were featured in newspapers such as Malaysia Nanban and Thinakural.

சனிக்கிழமை 2 மார்ச் 2013

எழுச்சி பெறட்டும் இளம் ஆய்வாளர்கள்

ஐந்து லட்சம் வெள்ளி மானியம் வழங்கி கமலநாதன் உரை

இ.எம்.முகமது அலி
படம்: வி.எம்.பிரியா

பெட்டாலிங் ஜெயா, மார்ச் 2– 'ஆண்டுதோறும் நடத்தப்படும் இளம் ஆய்வாளர் விழாவை தளமாகக் கொண்டு எதிர்கால விஞ்ஞானி களாக தங்களை உருவாக்கிக் கொள் ளும் வகையில் மலேசியத் தமிழ்ப் பள்ளி மாணவர்கள் இன்றே எழுச்சி பெறட்டும்' என புத்ரா மஇகா தலை வரும் உலு சிலாங்கூர் நாடாளுமன்ற உறுப்பினருமான பி.கமலநாதன் கேட்டுக்கொண்டார்.

அறிவியல் தொழில்நுட்பத்தாக்க இயக்கத்தோடு இணைந்து மலேசிய சமூக கல்வி அறவாரியம், புத்ரா மஇகா, மலேசிய மனிதவள மறுநகர் மேம்பாட்டுக் கழகம்(டிரா),மலேசிய தலைமையாசிரியர் மன்றம், நெகிரி மாநில தமிழ்ப்பள்ளி தலைமை யாசிரியர் மன்றம், பேரின்பம், மலாக்கா இளம் பட்டதாரிகள் சங்கம், இந்தியப் பட்டதாரிகள் இயக்கம் இணைந்து தோட்ட மாளிகையில் நடத்திய இளம் ஆய்வாளர் அறிமுகம்–நிதி திரட்டு விழாவில் பிரதமர் சார்பாக வழங்கப் பட்ட ஐந்து லட்சம் வெள்ளியை ஏற்பாட்டாளர்களிடம் வழங்கியபோதே கமலநாதன் மேற்கண்டவாறு கேட்டுக் கொண்டார்.

மனிதவள அமைச்சர் டத்தோஸ்ரீ டாக்டர் சுப்பிரமணியத்தை பிரதிநிதித்து இந்த நிகழ்வில் கலந்து கொண்டு பேசிய கமலநாதன் இந்திய மாணவர் களின் அனைத்து நிலையிலான உயர்வுகளுக்கும் அரசாங்கம் என் றுமே பக்கபலமாக இருக்கும் என்றார்.

கடந்த ஆறு ஆண்டுகளாக தமிழ்ப்பள்ளி மாணவர்களுக்காக இந்த அறிவியில் ஆய்வாளர் விழா நடத்தப்பட்டு வருவது பெருமையளிக் கிறது.

இது போன்ற விழாக்கள் கடந்த காலங்களில் நடத்தப்படவில்லை. நான் படிக்கும் காலத்தில் இது போன்ற விழாக்கள் நடத்தப்படவில்லை.

முழுக்க தமிழ்ப்பள்ளி மாணவர் களுக்காகவே இப்படி ஒரு விழா நடத்தப்படுவது பெருமையளிப்பதாக உள்ளது. கடந்த ஆண்டு 339 பள்ளி கள் பங்குபெற்ற நிலையில் இவ்வாண்டு 416 பள்ளிகளாக அதிகரித்திருப்பதும் பெருமையளிக் கிறது.

இளம் ஆய்வாளர்களை அறிமுகப் படுத்தும் இந்தக் களம் வெற்றிபடைய பிரதமர் சார்பாக ஐந்து லட்சம் வெள்ளியை வழங்குவதிலும் நமது மனிதவள அமைச்சரைப் பிரதிநிதித்து இந்த தொகையை வழங்குவதிலும் பெருமையடைகிறேன் என கமல நாதன் உரையாற்றினார்.

பல்வேறு இயக்கங்களைச் சேர்ந்த வர்கள் பொதுமக்கள் என நூற்றுக் கணக்கானோர் இந்த நிகழ்வில் கலந்து கொண்டனர் என்பது குறிப்பிடத்தக்கது.

தமிழ்ப்பள்ளி அளவிலான அறிவியல் விழா 2013

பள்ளிகளின் பங்கேற்பு

தமிழ்ப்பள்ளி மாணவர்களிடையே அறிவியல் ஆர்வத்தையும், ஆக்கச்சிந்தனையும், முறையான ஆய்வுப் பண்பினையும் உருவாக்க வேண்டும் என்ற நோக்கில் அறிமுகப்படுத்தப்பட்டதே இந்த இளம் ஆய்வாளர்களின் அறிவியல் விழா. இளம் ஆய்வாளர்களின் அறிவியல் விழா கடந்த 6 ஆண்டுகளாக மாநில அளவிலும், தேசிய அளவிலும் வெற்றிகரமாக நடந்து வந்த போதிலும், பள்ளி அளவில் அறிமுகப்படுத்தப்படுவது இது நான்காவது ஆண்டாகும். இவ்விழா தத்தம் பள்ளிகளில் சிறப்பான, சுலபமான முறையில் ஏற்பாடு செய்திடும் வழிகளையும் அதன் தெளிவான விவரங்களையும் அறிந்திடும் வகையில் ஆசிரியர்களுக்கான பயிற்சி பட்டறை ஒவ்வொரு ஆண்டும் 9 மாநிலங்களில் ஏற்பாடு செய்யப்படும்.

இவ்வருடமும் ஆசிரியர்களுக்கான பயிற்சி பட்டறை, கடந்த ஜனவரி மாதம் தொடங்கி பிப்ரவரி மாதம் வரை மிகச் சிறப்பாக நடந்தேறியது. மொத்தம் 9 மாநிலங்களில் நடத்தப்பட்ட இந்தப் பயிற்சி பட்டறையில் 386 பள்ளிகளிலிருந்து சுமார் 500க்கும் மேற்பட்ட ஆசிரியர்கள் கலந்து கொண்டனர். அதனை அடுத்து, தற்போது மொத்தம் 312 பள்ளிகள் தங்கள் பள்ளிகளில் பள்ளி அளவிலான அறிவியல் விழாவினை நடத்தவுள்ளனர். மேலும், பல பள்ளிகள் இவ்விழாவினை தங்கள் பள்ளிகளில் ஏற்பாடு செய்வார்கள் என பெரிதும் எதிர்பார்க்கப்படுகிறது.

தமிழ்ப்பள்ளி அளவிலான அறிவியல் விழாவினை தங்கள் பள்ளிகளில் எவ்வாறு படிப்படியாக ஏற்பாடு செய்ய வேண்டும் என்பதனை ஒவ்வொரு ஆசிரியருக்கும் இப்பயிற்சி பட்டறையின் போது தெளிவாக விவரிக்கப்பட்டது. இவ்விழாவினை ஏற்பாடு செய்வதற்கு ஏதுவாக தகவல்கள் அடங்கிய குறுந்தட்டும், கையேடும் அனைத்து ஆசிரியர் களுக்கும் இப்பட்டறையின் போது வழங்கப்பட்டது. மேலும், ஆசிரியர்களிடையே நல்ல புரிந்துணர்வை ஏற்படுத்தும் வகையிலும் இவ்விழாவினை சிறந்த செயலாக்க முறையில் ஏற்பாடு செய்யும் வழிகளை அறிந்திடவும் சில கலந்துரையாடல்களும் மேற் கொள்ளப்பட்டன. பள்ளி அளவிலான அறிவியல் விழா சம்பந்தமான மேல் விவரங்களைத் தெரிந்து கொள்ள விரும்பும் பள்ளிகள் மாநில ஒருங்கிணைப்பாளரைத் தொடர்புக் கொள்ளுமாறு கேட்டுக் கொள்ளப்படுகின்றது. ஒருங்கிணைப்பாளர்களின் தொடர்பு எண்: கெடா - பெர்லிஸ் சதிஷ் 016-693 2986, பினாங்கு எட்வின் ஆனந்த் ராஜ் 014-919 7980, பேராக், சுரேஷ் குப்புசாமி 012-258 3539, சிலாங்கூர் - கோலாலம்பூர் குமாரி சித்திரா பெருமாள் 016-597 1447, பகாங் செல்வேந்திரன் 019-918 5678, நெகிரி செம்பிலான் ஜோசப் வில்லியம் 019-623 7455, மலாக்கா இராமசொக்கலிங்கம் 019-665 1664, ஜோகூர் ரவின் குமார் கிருஷ்ணசாமி 016-728 9194 அல்லது இளம் ஆய்வாளர்களின் அறிவியல் விழா செயற்குழு 03-7877 8571 அல்லது 03-7865 5557.

தமிழ்ப்பள்ளி அளவிலான அறிவியல் விழா 2013 பள்ளிகளின் பங்கேற்பு

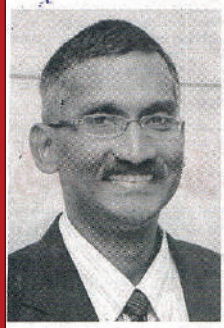
கோலாலம்பூர், ஏப். 7–

நம் தமிழ்ப்பள்ளி மாணவர்களிடையே அறிவியல் ஆர்வத்தையும், ஆக்கச் சிந்தனையையும், முறையான ஆய்வுப் பண்பினையும் உருவாக்க வேண்டும் என்ற நோக்கில் அறிமுகப்படுத்தப்பட்டதே இந்த இளம் ஆய்வாளர்களின் அறிவியல் விழா. இளம் ஆய்வாளர்களின் அறிவியல் விழா கடந்த 6 ஆண்டுகளாக மாநில அளவிலும் தேசிய அளவிலும் வெற்றிகரமாக நடந்து வந்த போதிலும், பள்ளி அளவில் அறிமுகப்படுத்தப்படுவது இது நான்காவது ஆண்டாகும். இவ்விழா தத்தம் பள்ளிகளில் சிறப்பான, சுலபமான முறையில் ஏற்பாடு செய்திடும் வழிகளையும் அதன் தெளிவான விவரங்களையும் அறிந்திடும் வகையில் ஆசிரியர்களுக்கான பயிற்சிப் பட்டறை ஒவ்வொரு ஆண்டும் 9 மாநிலங்களில் ஏற்பாடு செய்யப்படும்.

இவ்வருடம் ஆசிரியர்களுக்கான பயிற்சிப் பட்டறை, கடந்த ஜனவரி மாதம் தொடங்கி பிப்ரவரி மாதம் வரை மிக சிறப்பாக நடந்தேறியது. மொத்தம் 9 மாநிலங்களில் நடத்தப்பட்ட இந்தப் பயிற்சி பட்டறையில் 386 பள்ளிகளிலிருந்து சுமார் 500 க்கும் மேற்பட்ட ஆசிரியர்கள் கலந்து கொண்டனர்.

பள்ளி அளவிலான அறிவியல் விழா சம்பந்தமான மேல் விவரங்களைத் தெரிந்து கொள்ள விரும்பும் பள்ளிகள் மாநில ஒருங்கிணைப்பாளரைத் தொடர்பு கொள்ளுமாறு கேட்டுக் கொள்ளப் படுகின்றது. ஒருங்கிணைப் பாளர்களின் தொடர்பு எண்: கெடா & பெர்லிஸ் சதிஸ் 016-6932986, பினாங்கு எட்வின் ஆனந்த் ராஜ் 014-9197980, பேரா சுரேஷ் குப்புசாமி 012-2583539, சிலாங்கூர் & கோலாலம்பூர், குமாரி சித்திரா பெருமாள் 016-5971447, பகாங் செல்வேந்திரன் 019-9185678, நெகிரி செம்பிலான் ஜோசப் வில்லியம் 019-6237455, மலாக்கா இராமசொக்கலிங்கம் 019-6651664, ஜொகூர் ரவின் குமார் கிருஷ்ணசாமி 016-7289194 அல்லது இளம் ஆய்வாளர்களின் அறிவியல் விழா செயற்குழு 03-78778571 அல்லது 03-78655557.

சைபர் ஜெயாவில் இன்று மாணவர் அறிவியல் விழா



தமிழ்ப்பள்ளி மாணவர்களுக்காக இளம் ஆய்வாளர்களுக்கான அறிவியல் விழாவை பேராக், சிலாங்கூர், கோலாலம்பூர் ஆகிய மாநிலங்களில் ஏற்று நடத்தி வருகின்றது. கோலாலம்பூர், சிலாங்கூர் மாநிலங்களுக்கான இளம் ஆய்வாளர்களுக்கான அறிவியல் விழா 2013 இன்று 29-6-2013 சைபர் ஜெயாவில் உள்ள மல்டிமீடியா பல்கலைக்கழகத்தில் நடக்கவுள்ளது.

இவ்விழாவை இரண்டாம் துணை கல்வி அமைச்சர் பகமலநாதன் அதிகாரப்பூர்வமாகத் தொடக்கி வைப்பார். பிற்பகல் 12.00 மணியில் இருந்து மதியம் 3.00 மணிவரை மாணவர்களின் படைப்புகள் பொது மக்களின் பார்வைக்கு வைக்கப்படும்.

நாம் இன்று அறிவியல், தொழில்நுட்பத்தை அதிகம் நம்பியிருக்கும் நூற்றாண்டில் வாழ்கிறோம். துரதிர்ஷ்டவசமாக இன்றைய மாணவர்களுக்கு அறிவியல் என்பது பள்ளியில் கற்பிக்கப்படும், தேர்வில் சிறந்த புள்ளிகளைப் பெறக்கற்கப்படும் ஒரு பாடமாக தான் உருவகப்படுத்தப்பட்டுள்ளது. தடிமன புத்தகங்களை உருப்போடுவது, வெள்ளை ஆய்வு அங்கி அணிவது, நுண்ணோக்கி, பரிசோதனை குழாய்கள் என்பது தான் அறிவியல் என்று பலர் கருதுகின்றனர்.

மிகக் குறைவானவர்களே, அறிவியல் என்றால் ஒரு பொருள் அல்லது ஒரு செய்தியை வரையறுக்கப்பட்ட முறையில், ஆழமாக ஆராய்ந்து பரீட்சித்து முடிவு செய்வது என்பதை புரிந்து வைத்துள்ளனர். அறிவியல் என்பது பல லட்சக் கணக்கான பயனம். அறிவியல் உருவாக்கும் சிந்தனைகள் நம்மகத்தன்மையும் அறிவார்ந்ததுமாகும். அறிவியலின் மூலம் தொழில்நுட்பம், நோய் தீர்க்கும் மருந்துகள் என பல இயற்கை மர்மங்களுக்கு விடைகாண முடியும்.

மக்களிடையே கல்வி, அறிவியலின் முக்கியத்துவத்தை உணர்ந்த டிரா மலேசியா அதுமட்டுமல்லாமல் நமது தமிழ்ப்பள்ளி மாணவர்களிடையே இலை மறைக் காய் போல் மறைந்து கிடக்கும் அறிவியல் ஆர்வத்தை வெளிக்கொணரவும் உலகில் பரவிக் கிடக்கும் அறிவியல் அறிவை மாணவர்களிடம் கொண்டு சேர்க்கவும் 'அறிவன்' என்ற இலவச அறிவியல் மாத இதழை வெளியிடுகிறோம் என்றார் அவர்.

அறிவியல் விழாவைப் பற்றிய மேல் விவரங்களைப் பெற மணிவண்ணன் 014-601 1630, சித்ரா பெருமாள் 016-597 1447 ஆகியோரை தொடர்பு கொள்ளலாம் என்றார்.

தங்காக் தோட்டத் தமிழ்ப்பள்ளியில் அறிவியல் விழா

Team invents water recycler

Teacher and pupils use bike for filtration

By KATHLEEN ANN KILI
newsdesk@thestar.com.my

JOHOR BARU: Three primary school pupils and a teacher here have invented a water purifying system using a modified bicycle.

SJK(T) Kangkar Pulai Science teacher S. Gomathy said the project, known as aqua bicycle, used recycled materials.

"The motor pumps dirty water from a container into the filter and then pumps out clean water into another container after filtration," she said.

The bicycle can convert a container of dirty water, mixed with stones, grass and even sand, to clean and clear water within minutes, it is claimed.

"The water can be used for bathing, washing and even drinking," said Gomathy, adding that it would still need boiling before drinking.

The team worked closely with Universiti Teknologi Malaysia, which Gomathy said had certified it to be as good as piped water.

Aqua bicycle: (From left) Sahmeeha, Jegatheswary and Sakthisundaran holding a gold medal they won in a competition.

The three students were Year 5 pupils P. Sahmeeha, N. Jegatheswary and S. Sakthisundaran.

"We learned a lot about the importance of clean water," said Sahmeeha.

Gomathy said the bicycle was inspired by orang asli in Kampung Layau Semencha, Kota Tinggi.

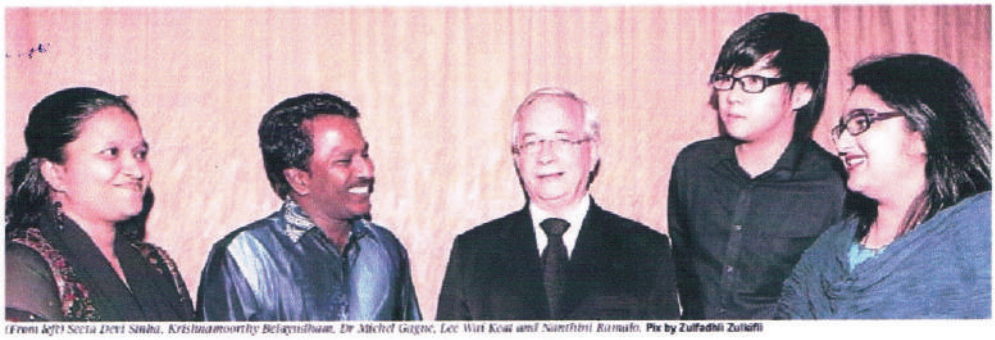
"Although there is a river located just a few kilometres away, the villagers prefer to walk deep into the forest to collect cleaner water," she said.

The aqua bicycle has received much recognition during competitions including the National Science Fair for Young Children where the team clinched the Best Innovation and Best Presentation titles back in 2011.

SJK(T) Kangkar Pulai is among 30 primary and secondary schools which submitted their entries for Johor's first Green Award, which will be held during the state-level Earth Hour celebrations on March 23.

STREETS YOUR EVENT

For enquiries or to buy pictures featured here, contact Santha or Janarish at 03-2056 9318. You can also email santha@nstp.com.my or janarish@nstp.com.my



(From left) Seeta Devi Sinha, Krishnamoorthy Belayutham, Dr Michel Gagne, Lee Wai Keat and Santhini Ramalo. Pix by Zulfadhli Zulkifli

(From left) Sri Raman Nair, Dunsotharan Appalasamy, Joseph William and Sivakumar Vellasamy.

RM50,000 RAISED FOR SCIENCE FAIR

PETALING JAYA: A fundraising dinner which saw scientists and members of the public chipping in to raise RM50,000 for the upcoming National Science Fair For Young Children 2013 was held at Wisma Petaling recently.

A mock cheque for RM500,000 was also presented by Hulu Selangor MP P. Kamalanathan on behalf of Human Resources Minister Datuk Seri Dr S. Subramaniam, at the function.

Association of Science, Technology and Innovation president Mohamed Yunus Mohamed Yasin said the first Science Fair for Young Children was held in June 2007 for Year 4 and 5 Tamil school students.

"The 2007 fair was such a big hit that the fair went national the following year.

"Sixty winning teams, comprising five students and two teachers in each team, from 180 Tamil schools in six designated zones nationwide competed that year," said Yunus. By Naveen Mathew Menon

(From left) Major Dr Vikneswaran Manikanan, Saravanan Vinadamathan and Mohamed Yunus Mohamed Yasin.

Chitra Perumal (left) and Shanmugapriya Mohan.

4) National Level Science Fair 2013

- Road Show at Kotthumalai Pillaiyar Temple, Grand City Restaurant and Brickfields.
- Pamphlets were sent to VIPs, Guests, Funders and all well-wishers to provide information about the NSFYC.
- NSFYC 2013 invitations were sent to VVIPs, VIPs, Guests, Public University and Private University lectures, funders and well-wishers.
- A special invitation known as "The Invitation to Explore" enticed the public to NSFYC 2013.
- 10 capsules related to science were sponsored by ASTRO and was telecast over ASTRO Tamil Channels until the National Level Science Fair.
- A promotional capsule which was sponsored by ASTRO was telecast over ASTRO Tamil Channels a month before the National Event.
- Promotion over THR Raaga information zone.
- Interview over ASTRO Vaanavil Vizhuthugal before the event, attended by Mr. CM Vignaesvaran Jeyandran, Project Director of SFYC 2013.
- Interview of the Winning team of NSFYC 2013 on ASTRO after the event.
- Interview of the Winning team of NSFYC 2013 on Minnale FM.
- Various news paper carried the National event such as Malaysia Nanban and Thinakural and NSTP.

Meanwhile for Creative and Critical Thinking Camp 2013, there was a full converge by ASTRO 360.



3.5 Arivom Ariviyal

ASTI in collaboration with Malaysia Nanban to release the newspaper articles, once a week with the title of "Ariyom Ariviyal" (Understanding Science). The articles were written by Dr.Mohamed Yunus Yasin. A total of 22 articles have been published as of 31 December 2013. The total translation cost of the articles for year ended 30 October 2013 was RM 3752.40.

ஐந்தாவது மூலம்

அறிவோம் அறிவியல் – 22

வாழ்வை வழங்குவது...

டாக்டர் முகமது யூனுஸ் யாசின்

ஐந்தாவது மூலம்

அறிவோம் அறிவியல் – 23

வாழ்வு (பாகம் 2)

டாக்டர் முகமது யூனுஸ் யாசின்

காற்று உயிர் வாழ்வின் பாதுகாவலன்

டாக்டர் முகமது யூனுஸ் யாசின்

நம் கிரகத்தின் காற்று மண்டலம் பல்வேறு வாயுக்களால் உருவானதாகும். பூமியின் காற்று மண்டலம் புவியீர்ப்பு சக்தி வழி பல அடுக்குகளாக உருவாகியுள்ளது. வேறு கிரகங்களில், முக்கியமாக வியாழனில் "காற்று இராட்சசன்" என அழைக்கப்படுவதற்குக் காரணம் அதன் ஆழமான காற்று மண்டலமேயாகும்.

நவீன தனிம அட்டவணையில் அண்டத்திலேயே மிகச் சிறிய தனிமங்களாகக் கருதப்படும் ஹைட்ரோஜன் (71 விழுக்காடு), ஹீலியம் (27.1 விழுக்காடு) ஆகிய வாயுக்களால் உருவாகியுள்ளதே சூரியன் ஆகும். பொதுவாக வாயு மூலக்கூறுகள் நீர், திட மூலக்கூறுகளைவிட அடர்த்தி குறைவானதாக இருப்பதால் அவற்றால் வேகமாக நகர இயலும். எடுத்துக்காட்டாக, ஒரு ஹைட்ரோஜன் மூலக்கூற்றின் சராசரி வேகம் 1700 கி.மீ. அல்லது ஒரு கார் நெடுஞ்சாலையில் பயணிக்க வழங்கப்பட்டுள்ள அதிகபட்ச வேகத்தைவிட 15 மடங்கு அதிகமாகும்.

பூமியில் (மூலக்கூறு கன அளவு) கிட்டத்தட்ட 78 விழுக்காடு நைட்ரோஜன், 20.95 விழுக்காடு பிராணவாயு, 0.93 விழுக்காடு ஆர்கன், 0.038 விழுக்காடு கரியமிலவாயு, மற்ற வாயுக்கள் (சராசரியாக 1 விழுக்காடு) இருக்கின்றன. மொத்தமாக இவை காற்று என அறியப்படுகின்றன. இதில் பிராணவாயு மிகவும் ஆக்கத்துடனும் எளிதாக நெருப்பைப் பற்ற வைக்கும் தன்மையுடனும் இருக்கிறது. மிக அதிகமாக உள்ள நைட்ரோஜன் செயலற்ற தன்மையுடன் இருப்பதால் பூமியில் மிக எளிதாக நெருப்பு பிடிக்கும் தன்மை குறைவாகவே உள்ளது. நெருப்பை அணைக்கும் தன்மை நைட்ரோஜனுக்கு உள்ளது. ஆகவே காற்று மண்டலத்தில் உள்ள நைட்ரோஜன் பிராணவாயுவை நெருப்பு பிடிக்காமல் இருக்க உதவுகிறது.

இயற்கை எவ்வாறு தன்னை சமநிலையுடன் வைத்துள்ளது என்பதற்கு இதுவே சரியான உதாரணம். ஒரு கூரை அதன் கட்டட கலை வடிவமைப்பில் குளிர், காற்று, மழை, இன்னும் பிறவற்றைத் தடுப்பதோடு, தேவையான விசயங்களை ஒளி போன்றவற்றை உள் நுழைய அனுமதிக்கிறது. ஒரு கட்டடத்தின் கூரை போல சூரிய கதிர்வீச்சிலிருந்து ஊடுருவும் புற ஊதா வீச்சைத் தடுத்து பகல், இரவு நேரத்தில் வேறுபடும் அதிக வெப்ப நிலையைக் கட்டுப்பாட்டில் வைக்கவும் உதவுகிறது. இதனால்தான் பூமி எப்போதும் உயிர்கள் வாழ ஏதுவான இடமாக இருக்க முடிகிறது.

சூரியனுக்கு மிக அருகில் இருக்கும் கிரகம் புதன் கிரகமாகும். அதன் நில மேற்பரப்பின் வெப்பநிலை 130 டிகிரி செல்சியசைத் தொடும் வாய்ப்புள்ளதாம். வெள்ளிக்கிரகம் சூரியனுக்கு அருகில் இருக்கும் இரண்டாவது கிரகமாகும். ஆனால் அதன் வெப்பநிலையோ 630 டிகிரி செல்சியஸ் வரை செல்லும் வாய்ப்புள்ளதாம். புதன் கிரகத்தைவிட வெள்ளிக்கிரகம் சூரியனிலிருந்து தூரமாக இருந்தாலும், அதன் வெப்பநிலை புதனை காட்டிலும் 5 மடங்கு அதிகமாக இருக்கிறது. வெள்ளிக் கிரகத்தின் இந்த அதிகமான வெப்பநிலைக்கு 'பைக்குடில் விளைவு' (green house effect) தான் காரணமாக அதிகமாக இருக்கும் கரியமில வாயு வெப்பத்தை அக்கிரகத்திலிருந்து வெளியேற விடாமல் தடுத்து விடுகிறது. இதன் வழி காற்று மண்டலத்தின் இருப்பு ஒரு கிரகத்தின் வெப்பநிலை கட்டுப்பாட்டிற்கு எவ்வளவு முக்கியம் என்பதை நாம் உணர்ந்து கொள்ளலாம்.

காற்றுமண்டல அழுத்தம் என்பதை தலா ஒரு பரப்பளவில் வழங்கப்படும் அழுத்தம் வகுத்தல். அதைச் சுற்றியுள்ள வளிகளின் அளவு என அறியப்படுகிறது. இது அக்கிரகத்தின் புவியீர்ப்பு அழுத்தம். அவ்விடத்திலுள்ள காற்றின் மொத்த எடை ஆகியவற்றைக் கொண்டே கணக்கிடப்படுகிறது. கடல் மட்டத்தில் உள்ள பூமியின் சராசரி காற்று அழுத்தம் 101.3kpa kilopascals ஆகும். அதாவது நம்மை ஒரு டன் காற்று அழுத்திக் கொண்டிருக்கிறது. அதாவது ஒரு சிறிய காரின் எடை எப்படி இருக்குமோ அப்படி நம் உடலின் உள்ளும் காற்று இருப்பதால் இதேபோன்ற அழுத்தம் நம் உடலின் உள்ளும் இருக்கிறது. ஆனால் இதனால் நாம் நொறுங்கிப் போகவில்லையே. ஏனெனில் இயற்கை சமநிலையுடன் இருப்பதே அதற்குக் காரணம். நமது பூமி ஆறு வெவ்வேறு காற்று மண்டல அடுக்குகளாக உள்ளது. அவை அடிவளி மண்டலம், வெம்மடுக்கு மண்டலம், இடை வளிமண்டலம், வெப்ப மண்டலம், அயன்மண்டலம், புறவளி மண்டலம் ஆகும். நிலவியலாளர்களின் கருத்துப்படி நமது காற்று மண்டலம் பூமியின் பரிணாம வளர்ச்சிக்கேற்பவே மாற்றமடைந்தது என்கிறார்கள். மனிதர்களின் நடவடிக்கைகளே நம் பூமியின் காற்று மண்டலத்தின் தன்மையை மாற்றுகிறது.

சிந்தித்தலின் வகைகள்

அத்தியாயம்-8

"மனிதனால் கற்பனையில் அசாத்தியமில்லாத விஷயங்களை சிந்திக்க முடியும். ஆனால், உண்மையான விஷயங்களை மட்டுமே அவனால் புரிந்து கொள்ள முடியும்" என்று ஐசக் நியூட்டன் கூறுகிறார். நம்மைச் சுற்றியுள்ள உலகை நன்கு அறிந்து கொள்ள உதவுவது சிந்தித்தல் திறன். இது உண்மையைக் கண்டறிதலின் ஒரு பகுதியும் ஆகும்.

சிந்தித்தலை இருவகையாகப் பிரிக்கின்றோம். முதலாவதாக, ஆக்கச்சிந்தனை. இது பல்வேறு தொடர்புகளை உருவாக்கி, பரிமாற்றம் செய்து பல்வேறு சாத்தியக் கூறுகளைப் பற்றி ஆராய்வதாகும். சாத்தியக் கூறுகள் புதுமையானதாகவும் வழக்கத்திற்கு மாறானதாகவும் இருக்கலாம். இவ்வகை சிந்தனையானது, பிரச்சினைக்குப் பல்வேறு

முகமது யுனுஸ் யாசின்

மாற்று வழிகளை உருவாக்கி அதனை தேர்ந்தெடுக்கத் துணை புரிகின்றது.

இரண்டாவதாக திறனாய்வுச் சிந்தனை. இது பல்வேறு சாத்தியங்களை சீரிய முறையில் அலசி ஆராய்ந்து, மேம்படுத்தி அதனை பல சிந்தனைகளோடு ஒப்பிட்டு பேதம் பார்த்து பல பயனுடைய தீர்வுகளை எடுக்கப் பயன்படுகின்றது. பயனுள்ள முடிவுடைய நடவடிக்கையை எடுக்க இச்சிந்தனை அடித்தளமிடுகிறது. இவ்வகையான சிந்தனை அறிவியல் சிந்தனையுடன் தொடர்புடையதாகும்.

ஒரு வினாவிற்கு பல விடைகளை உருவாக்குவதில் ஆக்கச் சிந்தனை பெரும்பங்காற்றுகிறது. சிறந்த விடையைத் தேர்வு செய்ய திறனாய்வுச் சிந்தனை நமக்கு உதவுகின்றது. இதில் குறிப்பிடத்தக்க விஷயம் என்னவென்றால் நாம் சிந்தித்தல் பற்றி ஆராயும் பொழுது ஆக்க மற்றும் திறனாய்வுச் சிந்தனைத் திறன் வழி மட்டும் பிரித்து சிந்திக்கிறோம். பொதுவாக ஒரு தீர்வமைவிற்குத் தீர்வு காண இவ்விரு வகை சிந்தித்தலையும் பயன்படுத்துகின்றோம். நம் மூளை ஆக்கச் சிந்தனை மற்றும் திறனாய்வுச் சிந்தனையை வேறுபடுத்திப் பார்க்காது.

திறனாய்வுச் சிந்தனைக்கு சிறந்த உதாரணம் பக்கவாட்டுச் சிந்தனை ஆகும்.

எட்வர்ட் டே பேனோ 1967ஆம் ஆண்டு பக்கவாட்டுச் சிந்தனை என்ற புதுப்புனைவான சொல்லினை கண்டறிந்தார். தீர்வமைவிற்குத் தீர்வு காண எதிர்மறை அணுகுமுறையை காரியானுமானம் மூலமாகக் கையாண்டு தீர்வு காண்பதாகும். இதில் படிப்படியாக தர்க்கவியல் நியதியைக் கடைப்பிடிப்பதில்லை. உதாரணமாக, நாம் எதற்கு பேனா பயன்படுத்துகின்றோம் என யாரேனும் கேட்டால் நம்முடைய பதில் எழுதுவதற்கு என்று கூறுவோம். ஆனால் பக்கவாட்டு சிந்தனை எண்ணம் உடையவர்கள் பேனாவால் எழுதலாம். காகிதத்தின் மேல் வைக்கும் கனபொருளாகவும், ஆயுதமாகவும், கடித உறையைத் திறப்பதற்கும் நெம்புகோலாகவும் பயன்படுத்தலாமென பதில் கூறுவா.

குழந்தைகள் பொதுவாக பக்கவாட்டுச் சிந்தனை உடையவர்கள். அவர்கள் வளர வளர, இந்த சிந்தனை ஆற்றலை இழக்கின்றனர். இதற்கு முக்கியக் காரணம், அவர்கள் வளரும் பொழுது கற்க ஆரம்பிக்கின்றனர். இதன் மூலமாக அவர்களுடைய திறனாய்வுச் சிந்தனை அதிகரித்து, சிறந்த ஒரு தீர்வினைக் கொடுக்கின்றனர். எனவே, பெரியவர்களைவிட குழந்தைகளுக்கு பக்கவாட்டுத் திறன் அதிகம் என்பது திண்ணம்.

திறனாய்வுச் சிந்தனை நியாயமான சிந்தனை பிரதிபலிப்பின் வகையாகும். இதன் மூலம் நாம் என்ன செய்ய வேண்டும்? எதனை நம்ப வேண்டும் என்ற முடிவினை எளிதாக எடுக்கலாம். இதுபோக, ஒருவருடைய கோரிக்கை உண்மையா? சில நேரங்களில் உண்மையா? பாதி உண்மையா? அல்லது பொய்யானதா என்று பகுத்தாராய்ந்து முடிவு எடுக்க உதவும். மேற்கத்திய நாகரிகம் முதல் பண்டைய கிரேக்கத்தின் சாக்ரடீஸ் முறை, கிழக்கில் புத்த கலாம சுத்தா மற்றும் அபிதர்மாவில் திறனாய்வுச் சிந்தனையின் சுவடுகள் காணப்பெறுகின்றன. கேள்வி கேட்பதன் மூலமாக திறனாய்வுச் சிந்தனை மேம்படும்.

இவ்வகை சிந்தனைக்கு உதாரணமாக சில கேள்விகள். என்னுடைய எண்ணம் புதுமையானதா? நடைமுறை சாத்தியம் உள்ளதா? விலை அதிகமானதாக இருக்குமா? பயனுள்ளதாக இருக்குமா மற்றும் பல.

3.6 ASTI Outreach Programme

In its continued effort to promote science, technology and innovation, ASTI organizes and collaborates with schools/ organization in various activities to achieve its aims and objectives. ASTI engaged with several outreach programme for the year 2013 as below:

3.6.1 Malaysian Day Event

During the Malaysian Day Celebration, ASTI's Volunteers set up a booth demonstrating a few hands-on experiments taken from the Young Scientific Explorer (YSE). The details of the Malaysia Day Celebrations are as follows:

Date : 16th September 2013
Time : 5pm -9pm
Venue : Jalan Bangkung, Bukit Bandaraya

The total expenses for organize the Malaysian Day Booth was RM 126.90.

3.6.2 Talk in SJKT Sea Port

Mr.Anandan Shanmugam, representing ASTI for a Talk about Science in SJKT Seaport during their Science Week in their school. The details of the talk are as below:

Date : 3rd October 2013
Time :10am
Venue : SJKT Seaport

3.6.3 Kids Carnival

Kids Carnival 2013 was organized by Balsans Events & Productions to develop a sense of inter-religious understanding and harmonious friendship amongst young children. The details of the event are as below:

Date : 9th November 2013
Day : Saturday
Time : 10 am – 5 pm
Venue : SJK(C) St. Teresa, Brickfields
(behind La Salle Brickfields)

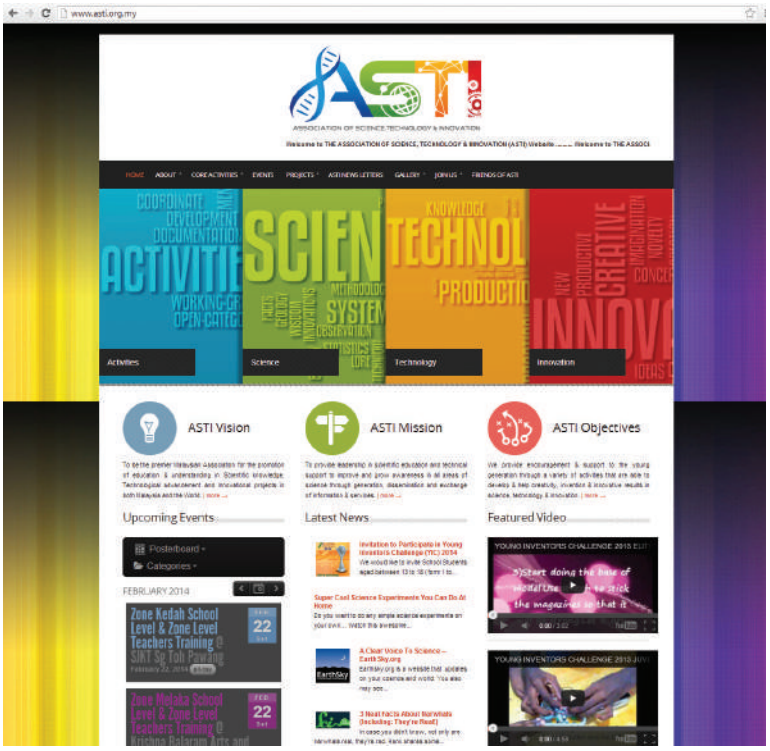
During this carnival ASTI sent the winners of the National Science Fair for Young Children 2013 and the winners of Young Inventors Challenge 2013 to exhibit their winning entries to the kids and the general public. The ASTI President was one of the Guest of Honor for the event.

The total expenses for this event was RM 600.00.

3.7 Website and Facebook

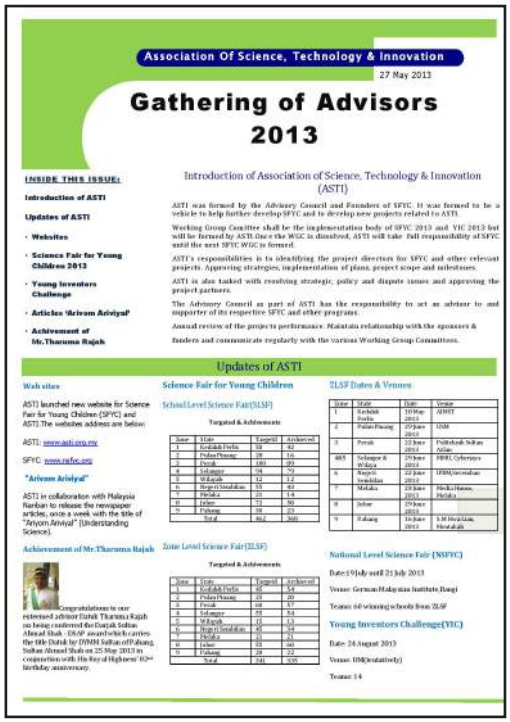
The website was launched during the ASTI's 1st Advisors Gathering which was held on 19 May 2013 at Dewan Perdana, Bukit Kiara Resort. The website was developed to be a corporate website which gives information about ASTI and its projects.

ASTI's Facebook was created on 18 November 2013 and we managed to get 166 likes on the first day. ASTI's facebook has been promoted heavily to our friends and members and will be used as another means to disseminate information and stay 'connected' to the youth of today.



3.8 Newsletter

The 1st edition of the ASTI Newsletter was produced during ASTI's 1st Advisors Gathering. Since the response was good ASTI continues this effort in order to update our members, stakeholders and friends with recent activities and projects' progress. As of 31 December 2013, ASTI has published 6 Newsletters. ASTI's 1st and 2nd newsletter were general update on all its projects and the 3rd newsletter mainly focused on National Science Fair for Young Children 2013. The 4th newsletter were updates on Young Inventors Challenge 2013 and the 5th one was on the ASTI's Outreach Programme. ASTI's 6th newsletter focussed on Creative and Critical Thinking Camp 2013. All the newsletters were emailed to ASTI's contact list and uploaded in ASTI's Website and ASTI's Facebook.


Association Of Science, Technology & Innovation

27 May 2013

Gathering of Advisors 2013

INSIDE THIS ISSUE:

Introduction of ASTI

Updates of ASTI

- Websites
- Science Fair for Young Children 2013
- Young Inventors Challenge
- Articles 'Arivom Ariviyal'
- Achievement of Mr.Tharuma Rajah

Introduction of Association of Science, Technology & Innovation (ASTI)

ASTI was formed by the Advisory Council and Founders of SFYC. It was formed to be a vehicle to help further develop SFYC and to develop new projects related to ASTI.

Working Group Committee shall be the implementation body of SFYC 2013 and YIC 2013 but will be formed by ASTI. Once the WGC is dissolved, ASTI will take full responsibility of SFYC until the next SFYC WGC is formed.

ASTI's responsibilities is to identifying the project directors for SFYC and other relevant projects. Approving strategies, implementation of plans, project scope and milestones.

ASTI is also tasked with resolving strategic, policy and dispute issues and approving the project partners.

The Advisory Council as part of ASTI has the responsibility to act as advisor to and supporter of its respective SFYC and other programs.

Annual review of the projects performance. Maintain relationship with the sponsors & funders and communicate regularly with the various Working Group Committees.

Updates of ASTI

Web sites

ASTI launched new website for Science Fair for Young Children (SFYC) and ASTI.The websites address are below:

ASTI: www.asti.org.my

SFYC: www.nsfyc.org

"Arivom Ariviyal"

ASTI in collaboration with Malaysia Rankan to release the newspaper articles, once a week with the title of "Arivom Arivival" (Understanding Science).

Achievement of Mr.Tharuma Rajah

Congratulations to our esteemed advisor Datuk Tharuma Rajah on being conferred the Darjah Sultan Ahmad Shah - DSAP award which carries the title Datuk by DYMM Sultan of Pahang, Sultan Ahmad Shah on 25 May 2013 in conjunction with His Royal Highness' 82nd birthday anniversary.

Science Fair for Young Children

School Level Science Fair(SLSF)

Targeted & Achievements

State	Target	Achieved
Kedah & Perlis	58	82
Pulau Pinang	38	16
Perak	100	101
Selangor	94	79
W.Kuala Lumpur	12	12
Negeri Sembilan	55	61
Melaka	25	14
Johor	72	90
Pahang	38	53
Total	462	360

Zone Level Science Fair(ZLSF)

Targeted & Achievements

State	Target	Achieved
Kedah & Perlis	58	54
Pulau Pinang	20	20
Perak	68	67
Selangor	55	54
W.Kuala Lumpur	15	13
Negeri Sembilan	55	54
Melaka	25	21
Johor	72	60
Pahang	28	22
Total	341	335

ZLSF Dates & Venues

State	Date	Venue
Kedah & Perlis	10 May 2013	AIMST
Pulau Pinang	29 June 2013	USM
Perak	15 June 2013	Politeknik Sultan Azlan
Selangor & W.Kuala Lumpur	29 June 2013	DBKL Cyberjaya
Negeri Sembilan	22 June 2013	UPSI,Tanjung Malim
Melaka	29 June 2013	Hatibi Hassan, Melaka
Johor	29 June 2013	
Pahang	16 June 2013	S.M Hwa Lian, Mentakab

National Level Science Fair (NSFYC)

Date:19 July until 21 July 2013

Venue: German Malaysian Institute, Bangi

Teams: 60 winning schools from ZLSF

Young Inventors Challenge(YIC)

Date: 24 August 2013

Venue: DBKL(tentatively)

Teams: 14


News Letter 2/2013 (5 July 2013)

IN THIS ISSUE:

ASTI, an introduction

ASTI, updates

- Websites
- Science Fair for Young Children 2013
- Young Inventors Challenge
- 'Arivom Arivival' Articles
- ASTI congratulates Datuk Tharuma Rajah
- ASTI Advisors Gathering

The Association of Science, Technology and Innovation (ASTI), an introduction

ASTI was formed by the Advisory Council and the Founders of SFYC. It was formed to be a vehicle to help further develop SFYC and to develop new projects related to ASTI's aspiration and vision such as Young Inventors Challenge (YIC).

ASTI formed Working Group Committees (WGC),as the actual implementation bodies of the SFYC 2013 and YIC 2013 projects. Upon successful project completion, the WGC is dissolved and the projects revert to the care and responsibility of ASTI until the following year's SFYC and YIC WGCs are formed.

ASTI's responsibilities with regard to its projects include planning, forming implementation strategies, defining project scope and setting milestones. With respect to SFYC the responsibility includes identifying the project director. ASTI is also tasked with resolving strategic, policy and dispute issues and vetting and approving project partners.

The Advisory Council provides guidance, advice and support for SFYC and other ASTI projects, programs and initiatives. The Advisory Council also communicates regularly with the various Working Group Committees and makes annual project performance reviews. It also engages and keeps ASTI's sponsors and funders regularly updated.

ASTI, updates

Websites

ASTI and SFYC (Science Fair for Young Children) have new websites! Please visit us at:

ASTI: www.asti.org.my

SFYC: www.nsfyc.org

"Arivom Arivival"

Weekly articles from ASTI are published in the Malaysia Nanban newspaper under the title of "Arivom Arivival" (Understanding Science). You can view the articles via the ASTI website.

ASTI congratulates Datuk Tharuma Rajah

Congratulations to our esteemed Advisor, Datuk Tharuma Rajah, on being conferred the Darjah Sultan Ahmad Shah - DSAP award which carries the title Datuk by DYMM Sultan of Pahang, Sultan Ahmad Shah, on 25th May 2013 in conjunction with His Royal Highness' 82nd birthday anniversary.

Science Fair for Young Children

School Level Science Fair (SLSF)

Targeted & Achieved

State	Target	Achieved
Kedah & Perlis	58	82
Pulau Pinang	38	16
Perak	100	74
Selangor	94	61
Kuala Lumpur	12	10
Negeri Sembilan	55	53
Melaka	25	14
Johor	72	72
Pahang	30	17
Total	462	207

Zone Level Science Fair (ZLSF)

Achieved

State	Achieved
Kedah & Perlis	54
Pulau Pinang	14
Perak	56
Selangor	61
Kuala Lumpur	14
Negeri Sembilan	53
Melaka	21
Johor	72
Pahang	15
Total	352

National Level Science Fair (NSFYC)

Date: 19 July (Friday) to 21 July 2013 (Sunday)

Venue: German Malaysian Institute, Bangi

Teams: 60 winning schools from ZLSF

Young Inventors Challenge (YIC) 2013 Final

Date: 24 August 2013 (Saturday)

Time: 11.00am to 4.30pm

Venue: Wisma Belia, 40 Jalan Syed Putra, 50460 Kuala Lumpur

Participating teams: 12+ Invited Exhibitors

ASTI Advisors Gathering

Held on 19 May 2013 at Bukit Kiara Resort


News Letter 3/2013 (9 SEPTEMBER 2013)

IN THIS ISSUE:

ASTI, An Introduction

ASTI, Updates

- National Science Fair for Young Children 2013

The Association of Science, Technology and Innovation (ASTI),

ASTI is The Association of Science Technology and Innovation (ASTI) is an association of educators, scientists, industry representatives and individuals who are committed to advancing the role of the scientific community in inspiring the youth of the nation to join and excel in the world of science. The members aim to revolutionize the teaching, understanding, and awareness of the vital role science, technology and innovation plays in fulfilling the economic, health and environmental requirements of the world's population. Members are also seeking to mentor and encourage youth to seek new innovative methods and technologies that will enhance the understanding and learning of the sciences. ASTI also tries to see Science Technology and Innovation for the advancement of mankind and protection of the environment. See http://www.asti.org.my/.

National Level Science Fair For Young Children 2013

The National Science Fair for Young Children 2013 was recently concluded and was a three days event which started on Friday evening and ended on Sunday evening. It was the culmination of over 3000 School Level Science Fairs and 282 Schools from 9 Zone Level Science Fairs. A total of 60 schools were selected for each zones.

The details of the event are as follows:

Date :

19 July 2013 - 21 July 2013

Accommodation :

Kolej Pendeta Za'ba,

Universiti Kebangsaan Malaysia (UKM)

Venue:

Dewan Gemilang Meeru Idaman,

German Malaysian Institute (GMI),

Bangi, Selangor.

Day1 (19 July 2013-Friday)

Participants and teachers from each zones started arriving from 2pm. After registration at the German Malaysian Institute, the teachers attended the briefing session.

The briefing was mainly on the itinerary for the 3 days and rules and regulations of the premises and event. This was followed by the Booth Set-Up at the main hall by all participants.

Meanwhile, the log book and report book which had been collected from the teams during registration were examined by a panel of judges.

Day 2 (20 July 2013-Saturday)

On the second day, the students were involved in hands-on experiments for 1 ½ hours followed by the judging evaluation at their respective booths which took nearly 3 ½ hours.

Meanwhile, the teachers were involved in activities such as discussion sessions with the organizing team, and Judging Department and Teachers sharing sessions.

In the afternoon, the opening ceremony was held in the Dewan Gemilang Meeru Idaman, German Malaysian Institute (GMI) and officiated by YB Datuk Seri Dr.S. Subramaniam, the Minister of Health, Malaysia

At night, Conference Paper Presentation was held in parrallel in three different lecture halls at the German Malaysian Institute as 3 parallel sessions. The top two teams from each zone presented their research and findings from their experiments. A total of 10 schools participated in this section and the top 2 schools from 3 groups were selected for a viva session the following day.

Day 3 (21 July 2013-Sunday)

The participants prepared for the public viewing. Meanwhile the viva session was held at a lecture hall at GMI for the top schools. The public viewing officially started at 10.00am until 1.00pm.

At the same time, there was a National SFYC Forum with Tamil School's Special Officers, Tamil School's Headmasters Councils Heads and Zone Coordinators held in Puri Pujangga, Universiti Kebangsaan Malaysia (UKM) from 11am to 2pm.

At 3.45pm, the closing ceremony began and ended at 5.30pm. The guest of honour for the closing ceremony was YB Kamalanathan, Deputy Minister of Education, Malaysia. All the participants were appreciated on the stage by our Guest of Honour and VIPs.

The Details of Winning Schools are as below:

SFYC WINNERS

CONFERENCE PAPER PRESENTATION

INNOVATION CATEGORY


News Letter 4/2013 (24th September 2013)

IN THIS ISSUE:

ASTI, an introduction

ASTI, updates

- Young Inventors Challenge 2013

The Association of Science, Technology and Innovation (ASTI), an Introduction

ASTI was formed by the Advisory Council and the Founders of SFYC. It was formed to be a vehicle to help further develop SFYC and to develop new projects related to ASTI's aspiration and vision such as Young Inventors Challenge (YIC).

The ASTI Vision: To be the premier Malaysian Association for the promotion of education and understanding in Scientific knowledge, Technological advancement and Innovational projects in both Malaysia and the World

The ASTI Mission: To provide leadership in scientific education and technical support to improve and grow awareness in all areas of science through generation, dissemination and exchange of information & services.

Young Inventors Challenge (YIC) 2013

Science Fair for Young Children (SFYC) is a project designed for primary school students, and about 500,000 participants have taken part in this initiative since 2006, at school, regional and national levels.

The ex-SFYC students are in secondary school now and are collectively known as the SFYC Alumni.

For the benefit of those Alumni, ASTI organised an 'follow-up' event named the Young Inventors Challenge (YIC) with the Theme "Green Inventions about an Environment". The details are as follows:

Date:

24 August 2013 (Saturday)

Venue:

Wisma Belia, Jalan Syed Putra

This year's YIC i.e. YIC2013 is a pilot project, had a total of 12 teams of which 5 teams are SFYC Alumni. They each showcased their inventions and vying for the top three spots which were awarded cash prizes. The winning team were also awarded the challenge trophy.

In conjunction with the invention competition, there was also be an exciting Video Log competition where each team had documented the whole invention journey of 5 months in a short 5 minute film! The top three videos was received

The event was graced by our guest of honour YB Datuk Dr. Abu Bakar Bin Mohamad Diah, Deputy Minister, Ministry of Science, Technology and Innovation (MOSTI). Mr Jarrod Zwartjes, Cultural Affairs Office from the Embassy of the United States of America also visited the event.

WINNERS OF YOUNG INVENTORS CHALLENGE 2013

1st GREEN WORLD SAVERS WASHING MACHINE WATER PURIFICATOR JOHOR

2nd GARDEN FRIEND 4R AGRO POT JOHOR

3rd THE SALVAGERS AUTOMATED WASTE SORTER NEGERI SEMBILAN

WINNER OF YIC VIDEO LOG COMPETITION 2013

1st GREEN WORLD SAVERS WASHING MACHINE WATER PURIFICATOR JOHOR

2nd ALPHA INNOVATION (PORTABLE AIR PUMP) SELANGOR

3rd GREEN THINKERS (SOYD AGRICAR) PERAK

3.9 Library and Documentation

Since 2012, the library has expended in terms of Arivom Ariviyal newspaper cuttings, books related to Science, Technology and Innovation, projects annual reports, science magazines and projects files.

3.10 ASTI and Joota MOU Signing

During the closing ceremony of Young Inventors Challenge 2013, ASTI signed a Memorandum of Understanding with Joota. Joota is a Malaysian initiative that aims to build a web-based community, like Facebook, but content-orientated, based on subjects of mutual interests among users.

Joota helps users build meaningful social networks around subjects of interest, so they can focus on what matters to them. Users can easily collect and socialize around images, videos, text and more. Joota is a tech start-up headquartered in Kuala Lumpur, Malaysia, with a presence in Portland, Oregon, USA.

The MOU was signed with the intended purpose to collaborate and pool recourses to explore ways to develop a vibrant community who have similar interests and especially in the areas of science, technology and innovation.

3.11 PHD on Effectiveness of Science Fair

During the ASTI's 1st committee meeting, the members decided to sponsor a student to do PHD on the effectiveness of Science Fair for Young Children. The committee discussed and brainstormed on the PHD proposal on 16 October 2013 and 28 October 2013. The committee is now in the midst of finding the suitable candidate and supervisor to proceed with the PHD study.

3.12 Education Portal

ASTI formed an Ad-Hoc committee to discuss the necessity of having an education portal. The committee has come-up with survey questions which were asked to the students and teachers who participated in National Science Fair for Young Children. The survey results showed that the students and teachers were favourable of having the past science fair experiments and various other science experiments accessible on the Science Fair website.

Based on the survey results the committee was of the opinion that the Education Portal would serve the purpose of making the learning of science and mathematics more accessible. The ad-hoc committee then proposed to ASTI committee to develop the Education Portal.

3.13 ASTI Advisors Gathering

The ASTI's Advisor panel has met twice in year 2013.The date and the venue of the 1st gathering is as below:

1st ASTI's Advisors Gathering

Date : 19 May 2013
Venue : Dewan Perdana ,
Bukit Kiara Resort

During the 1st gathering, the advisor was engaged with world café style discussion on the following topics:

- How to network among members?
- How do we become more effective in handling the real issues facing the communities?
- Should we start extending our projects beyond Tamil schools?
- What other projects initiatives we should start in future?

The discussion went on very well as all the advisors exchange their ideas.

ASTI's 2nd Advisors gathering was held as per details below:

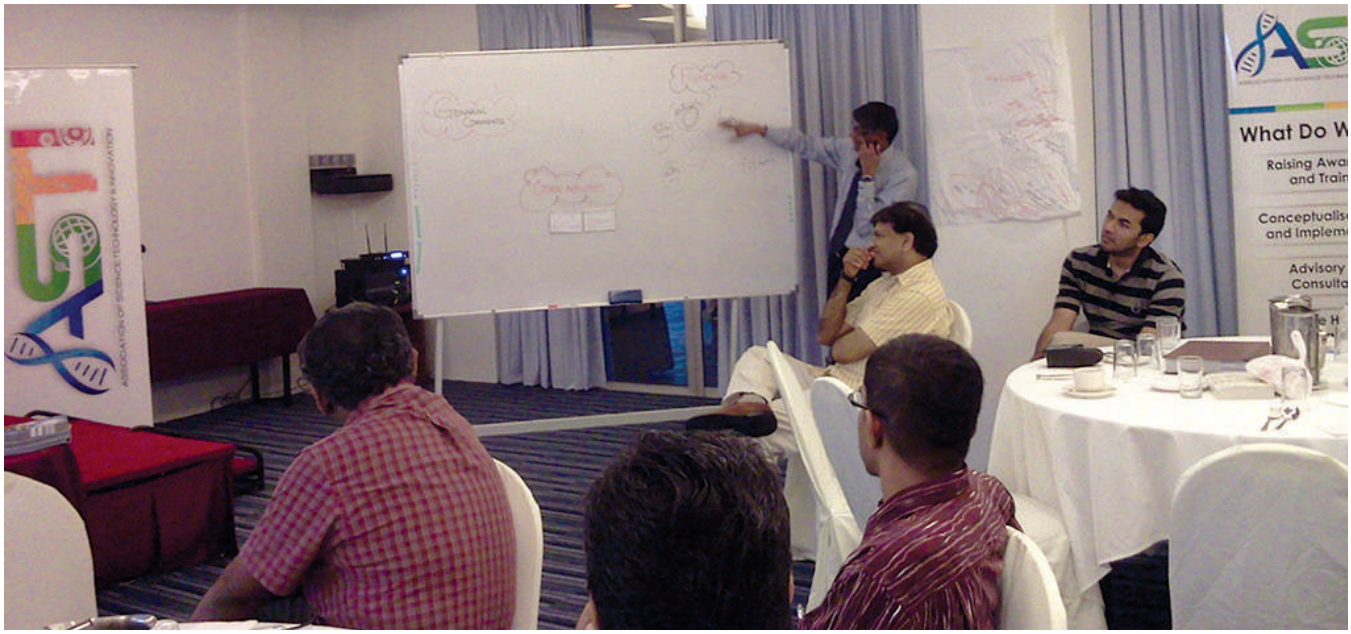
2nd ASTI's Advisors Gathering

Date : 05 October 2013
Venue : Parameswara Hall,
Shah's Village Hotel, Petaling Jaya

During the 2nd ASTI's Advisors Gathering, the advisors discussed the following :

- Ideas for activities
- Ideas for funding
- General comments on ASTI's improvement

There were many ideas and comments generated by the advisors and the ASTI committees have compiled them and are looking into those that are able to be implemented.



04 Administration and Finance

4.1 Administration

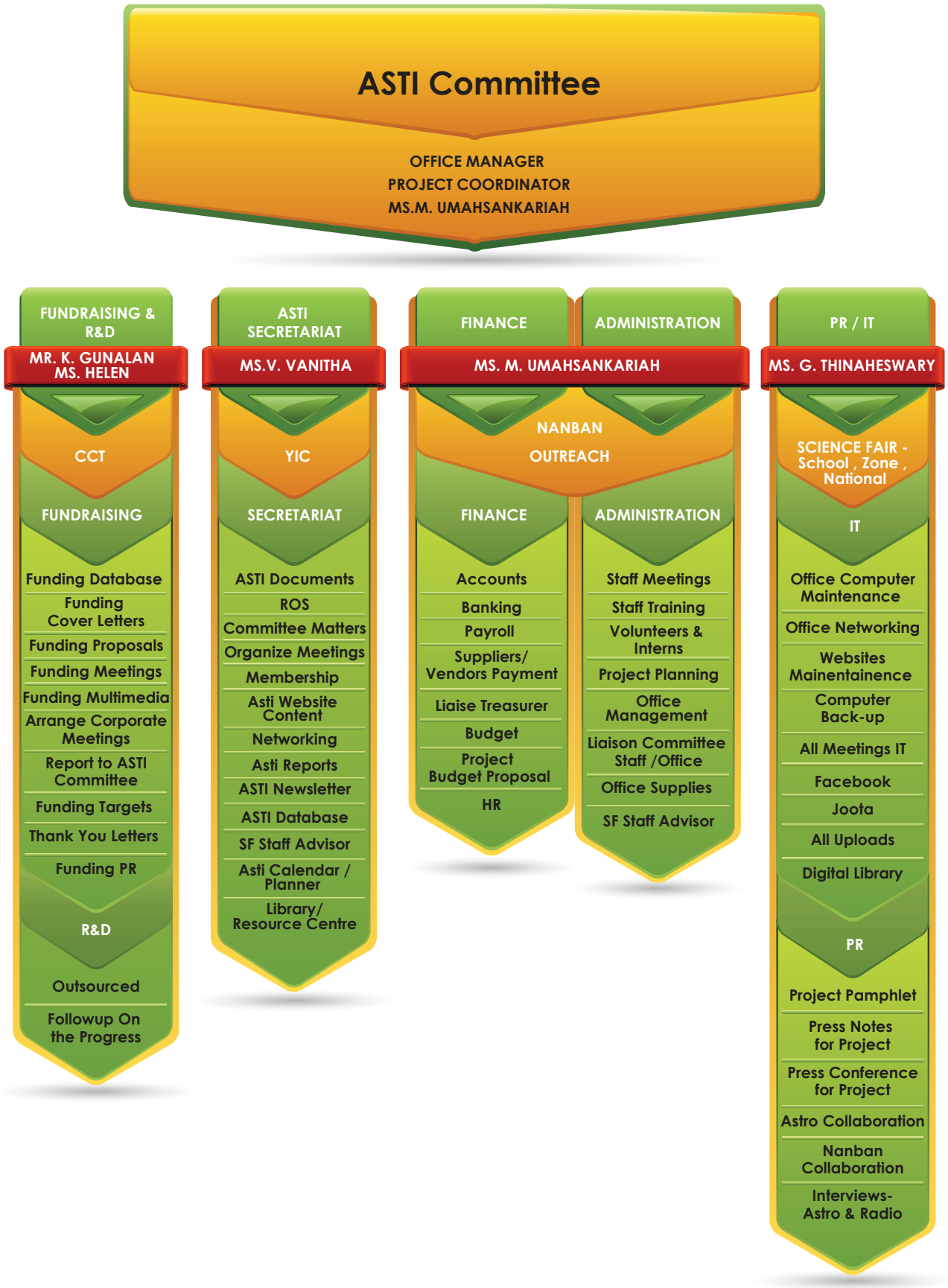
4.1.1 Premises

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

To raise income, ASTI rented out one ot the rooms within the premises to a social enterprise called Y -KNOTS. This arrangement came to an end in August 2013.

4.1.2 Staff

When the Association was formed, three full time staff who were originally employed solely for SFYC were taken on to work for ASTI. In April 2013, a staff member was hired to be in charge of the funding department. Approval has also been given to employ someone to assist the office Manager. ASTI restructured the secretariat in October 2013 as per the Chart below:



4.1.3 Registration of the Association

The association was registered on **25 October 2012** with the Selangor Registrar of Societies with the Name Pertubuhan Sains, Teknologi Dan Inovasi *(Association of Science, Technology and Innovation)*. The following were the requirements for registration:

1. Name of the Association
2. Registered Address of the Association
3. Details of the Committee Members
4. Pro-tem Committee Meeting Minutes
5. The Constitution of the Association

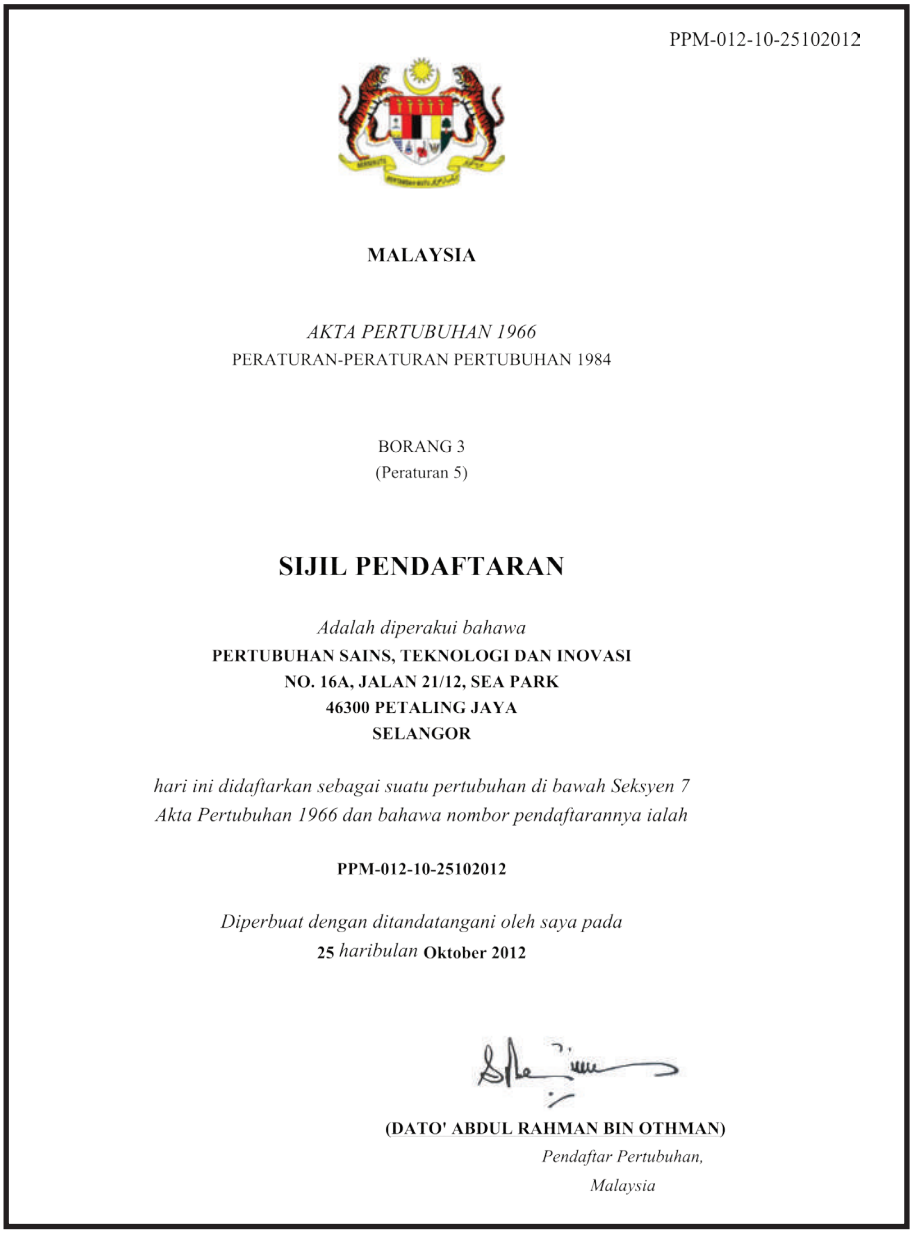
Once registered the association has to follow the Regulations of the Societies ACT 1966.

4.1.4 Documents Generated on ASTI's Inception

Below are the list of documents which we have created, Ver. 1.0 in the 2013

1. ASTI Standard Operating Procedures
2. ASTI Mission and Vision Statement
3. ASTI Office Bearers Code of Conduct
4. ASTI Membership Procedures
5. ASTI Terms and Condition of Service
6. Volunteering With ASTI
7. ASTI Internship

The above documents may be reviewed or updated at anytime with the approval of the committee.



PPM-012-10-25102012

MALAYSIA

AKTA PERTUBUHAN 1966
PERATURAN-PERATURAN PERTUBUHAN 1984

BORANG 3
(Peraturan 5)

SIJIL PENDAFTARAN

Adalah diperakui bahawa
PERTUBUHAN SAINS, TEKNOLOGI DAN INOVASI
NO. 16A, JALAN 21/12, SEA PARK
46300 PETALING JAYA
SELANGOR

hari ini didaftarkan sebagai suatu pertubuhan di bawah Seksyen 7 Akta Pertubuhan 1966 dan bahawa nombor pendaftarannya ialah

PPM-012-10-25102012

Diperbuat dengan ditandatangani oleh saya pada
25 *haribulan* **Oktober 2012**

(DATO' ABDUL RAHMAN BIN OTHMAN)
Pendaftar Pertubuhan,
Malaysia

4.2 Finance

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

PERTUBUHAN SAINS, TEKNOLOGI DAN INOVASI
STATEMENT OF INCOME AND EXPENDITURE ACCOUNT
FOR THE PERIOD ENDED 31ST OCTOBER 2013

INCOME	2013 **RM**
Income	849,351.00
ADD : OTHER INCOME - RENTAL RECEIVED	300.00
TOTAL INCOME	**849,651.00**
LESS : EXPENDITURE	
Accounting Fee	3,450.00
Article Translation	3,752.40
Design	1,380.00
Website	1,870.00
Audit Fee	1,200.00
Bank Charges	82.50
Booth Set Up	1,127.84
Car Rental	150.00
Cleaning Services	2,750.00
Depreciation	320.00
Donation	3,000.00
Electricity Charges	4,574.71
EPF & SOCSO	19,223.00
Entertainment	3,190.00
Insurance	2,310.00
Internet Charges	3,480.77
Honorium Expenses	11,800.00
Staff Refreshment	395.54
Printing & Stationery	3,518.00
Staff Salaries, Allowance & Bonus	102,965.30
NSFYC Project Expenses	581,530.00
YIC Project Expenses	41,482.54
Telephone	2,824.75
Travelling & Transpotation	1,315.00
Water Charges	581.58
TOTAL EXPENDITURE	**798,273.93**
EXCESS OF (EXPENDITURE) / INCOME	**51,377.07**
INCOME AND EXPENDITURE ACCOUNT	
Total Income	***849,651.00***
Total Expenditure	***798,273.93***
Surplus	***51,377.07***

Note: Surplus to be used as startup capital for following year until new funds received.

PERTUBUHAN SAINS, TEKNOLOGI DAN INOVASI
BALANCE SHEET AS AT 31ST OCTOBER 2013

INCOME	2013 **RM**
Assets	
Non- current assets	
Property, Plant and Equipment	*1,280.00*
Current assets	
Other Receivables	*7,136.47*
Cash and Bank Balance	*181,777.73*
	188,914.20
Total assets	**190,194.20**
Represented by:	
Accumulated Funds	
Surplus For the Year	*51,377.07*
Accumulated Funds c/f	*51,377.07*
Current liabilities	
Other Payables	*3,265.10*
Amount due to NSFYC	*135,552.03*
	138,817.13
Total liabilities	**138,817.13**
Total Funds and Liabilities	**190,194.20**

05
Evaluations and Aspirations

In the past year ASTI has successfully organized three major Projects namely Science Fair for Young Children, Young Inventors Challenge and Creative and Critical Thinking Camp. In addition, ASTI also engaged with the public through the Outreach Programme and writing articles for Malaysian Nanban news paper.

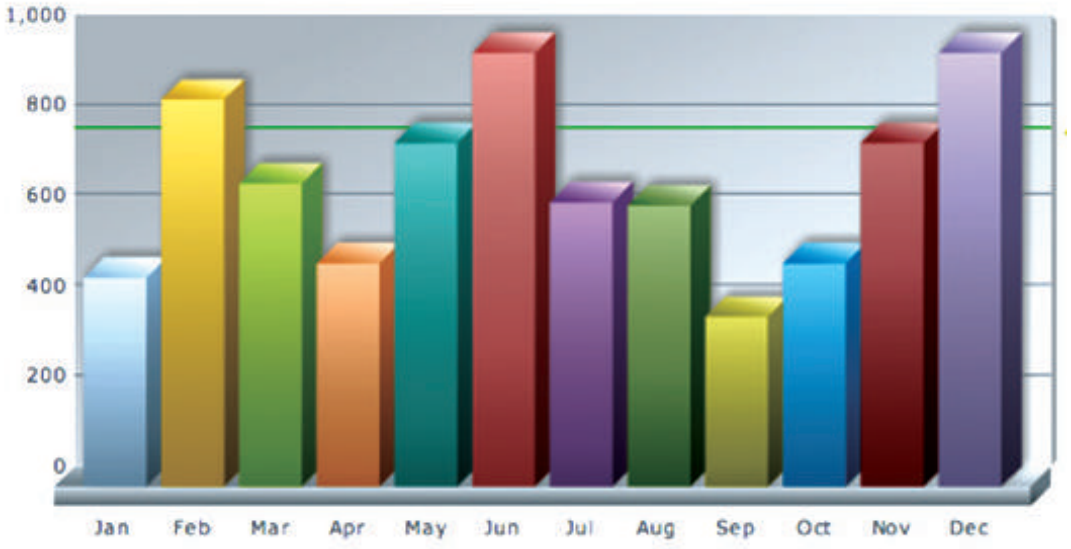
ASTI also has been collaborating with various Non Governmental Organizations in order to successfully run its projects.

06 Future Projects

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

1. Form a centralized R & D department in ASTI to develop content, produce modules and evaluation packages and to develop new programs.

2. Set up a program for the Volunteers to make their involvement in ASTI a more meaningful and educational experience.

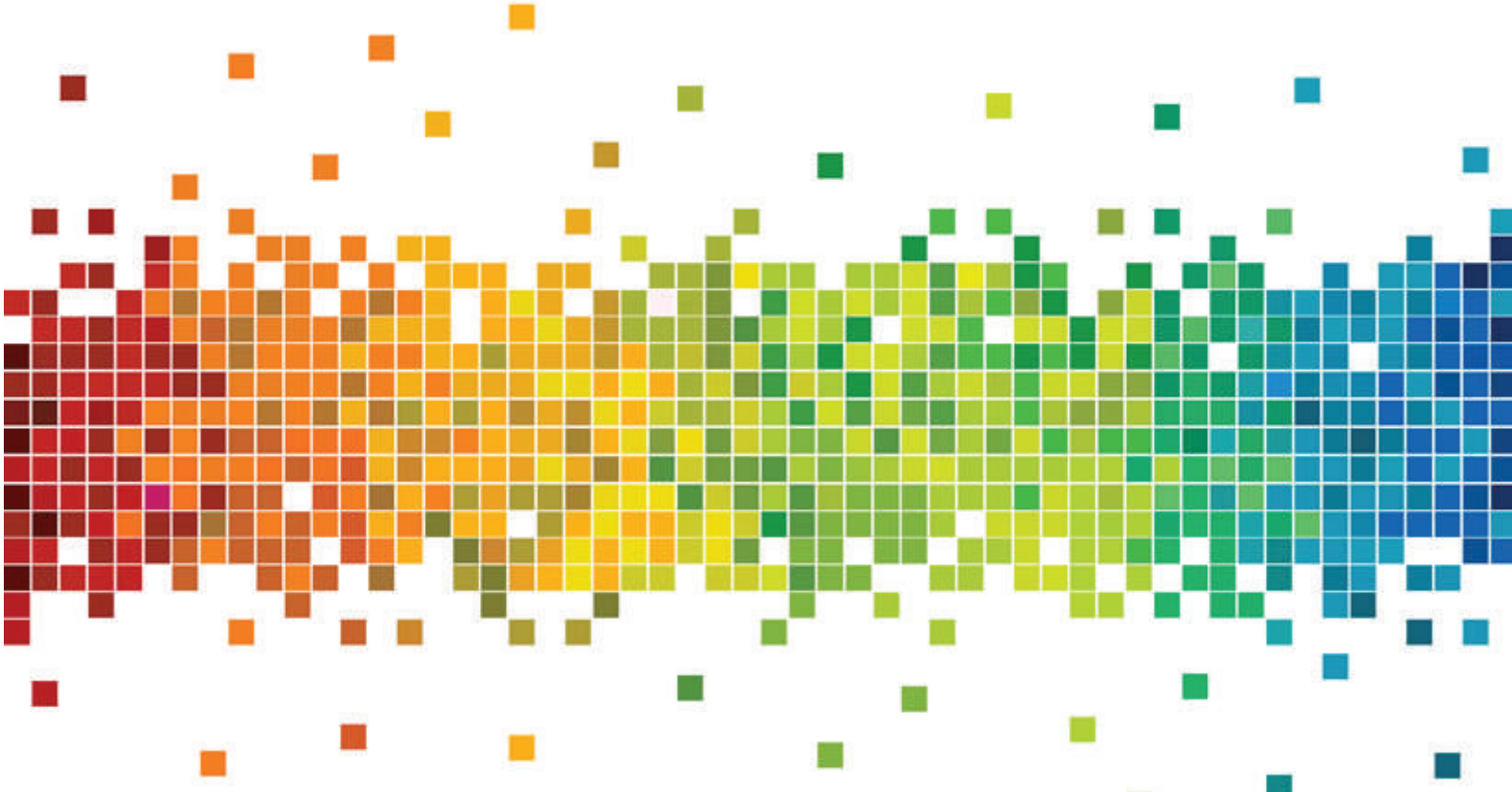


07
Appreciation

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.

Our Heartfelt Thanks to....

and all the contributors, hundreds of individuals and professionals who contributed their time, money and knowledge.



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