

GREEN FOOTPRINT

(2ND EDITION)

Think Green, Live Green, Love Green



Foreword

Green Footprint (2nd edition) continues to be a platform for ITE to chronicle our green initiatives and illustrate the enthusiasm of staff and students in our green journey.

In 2013, ITE was conferred the Public Sector Lee Foundation Singapore Sustainability Award by the Singapore Environment Council. This honour only encouraged us to go even further in our work in caring for the environment. Last year, ITE received the President's Award for the Environment 2014 - the highest environmental accolade in Singapore. The award, conferred by the President of Singapore, and administered by the Ministry for the Environment and Water Resources, recognises individuals, organisations and companies for their significant contributions to Singapore's efforts in achieving environmental sustainability. These accolades confirm that we are moving well in the right direction, in caring for the environment and promoting sustainability.

The current patterns of changing and unpredictable weather around the world are partly due to the disregard man has had for his natural environment. Our challenge, as an education organisation, is to teach our students not just to believe in, but to champion caring for the environment. I hope this e-Book will encourage staff and students, and other readers, to push ahead in our green journey together. Let's make Singapore a cleaner and greener place to Live, Learn and Love.



BRUCE POH GEOK HUAT
Director and Chief Executive Officer
Institute of Technical Education

Preface

At ITE, we consider it important that we play an active role to promote environmental awareness and green practices. Our environmental initiatives and programmes have been guided by both our corporate social responsibility policy, which calls for us to use our skills and resources to care for our community and build a sustainable environment, and our environmental sustainability strategy which focuses on Culture, Competency and Collaboration. With these guiding principles, our staff and students have initiated many activities in our green journey which demonstrate to ourselves and our stakeholders our commitment to contribute towards environmental sustainability.

Our environmental journey over the past five years has been an exciting and rewarding one. We have achieved much and received a number of environmental accolades. We had our Environmental Management System certified with ISO-14001 too. *Green Footprint* (2nd edition) continues from the 1st eBook (launched in 2012) as a collection of our extensive green initiatives and activities. It is evident that the enthusiasm and commitment of our staff, students and stakeholders have made our green journey exciting, impactful and meaningful. *Green Footprint* also serves to inspire us to think of and share ideas on how we can do more for our environment as we continue our green journey.

Happy reading!



Goh Mong Song

Deputy Principal (Academic), ITE College West

Chairman, Environmental Sustainability Initiatives Committee





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About ITE

One ITE System, Three Colleges Governance and Education Model



The Institute of Technical Education is a post-secondary institution in Singapore that provides pre-employment training to secondary school leavers as well as continuing education and training to adults learners.

As part of the Government's plan to develop ITE as a world-class technical education institution and meet the challenges of the global economy, ITE has adopted a *One ITE System, Three Colleges Governance and Education Model*.

Under this model, ITE headquarters will oversee system and policy direction and ensure the delivery of consistent standards and quality programmes. However, the three Colleges i.e. ITE College East, ITE College West and ITE College Central, are empowered to develop niche areas of excellence that will enhance the attractiveness of ITE education and responsiveness to industry and student needs.

<http://www.ite.edu.sg>



About ITE's Environmental Sustainability Initiatives

ITE promotes environmental sustainability with an integrated, multi-faceted, forward-looking and dynamic approach. It combines long-term strategic plans with regular ground activities while engaging both the community and innovative commercial enterprises.

The main objectives for this embarkation are:

- To establish ITE as an innovative technical institution, and thus providing a dynamic environment for its staff and students.
- To connect with industry players, enabling ITE to provide an authentic learning experience.
- To be well-attuned to topical issues including environmental and community sustainability.

Environmental Sustainability Policy



“We use our resources and skills to care for the community and build a sustainable environment.”

ITE has adopted the above statement as a guide to its environmental sustainability strategy and practices, and to communicate the institution's policy on going green.



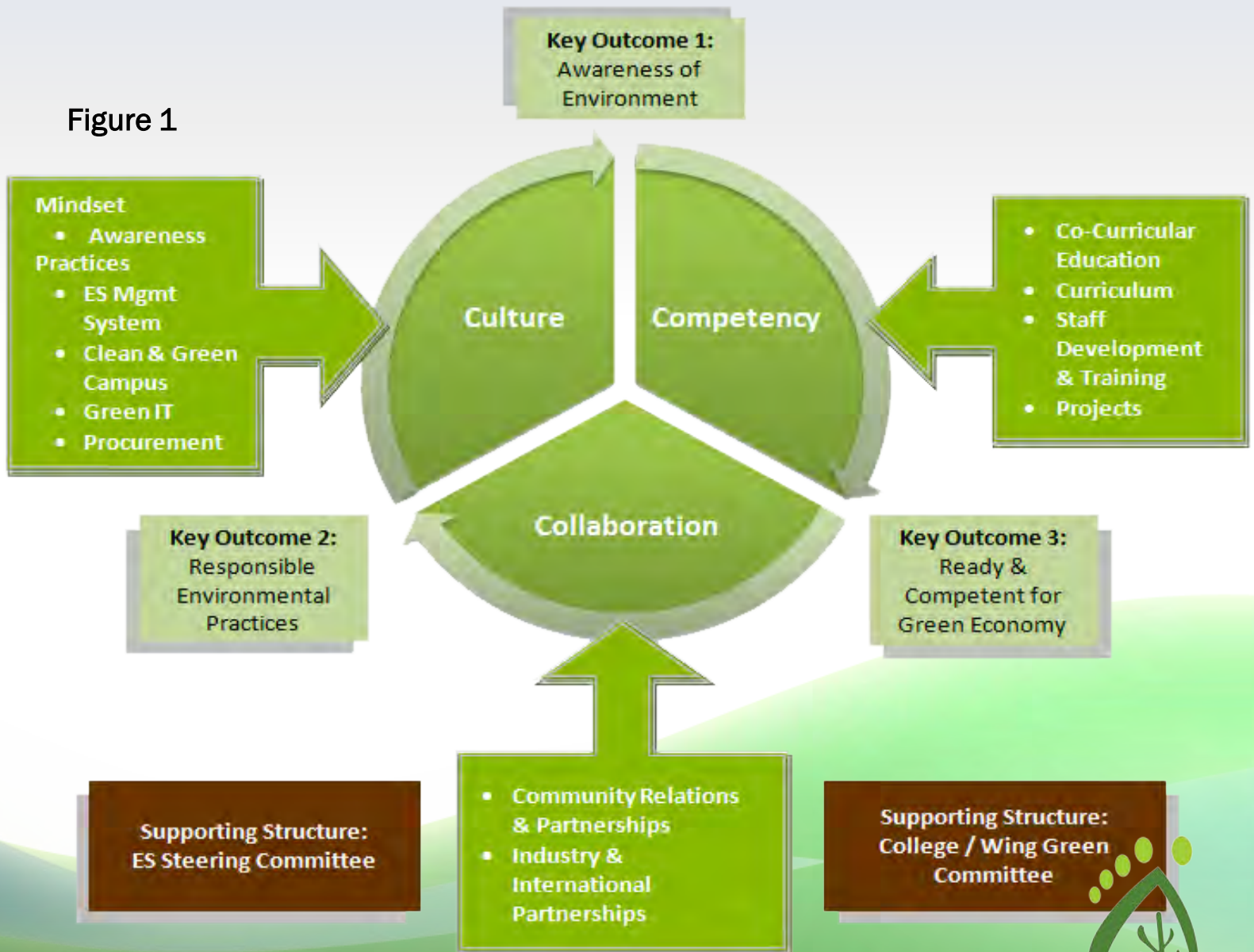
Environmental Sustainability Framework

ITE has incorporated environmental sustainability as one of the key strategic programmes under the *ITE INNOVATE Plan 2010 - 2014*, which aims at instilling greater awareness among ITE's stakeholders, embracing green practices and developing new competencies for the green economy.

With the objectives in mind, the environmental sustainability framework (Figure 1) is created based on a three-prong formulation of culture, competency and industry collaboration. This framework will serve to deliver the following key outcomes of:

- Creating awareness of environmental sustainability issues, and related global and industry development.
- Instilling responsible environmental sustainability practices.
- Developing competency for green economy.

Figure 1



Environmental Sustainability Strategy

Our students and staff practise green living through a 3-E experience:

- Engaging through various activities both inside and outside the classroom.
- Enriching with knowledge and practices about sustainable living.
- Embracing new developments and working together with external parties to further build skills.



Environmental Sustainability Outcome

The following key Environmental Sustainability (ES) Outcomes are expected at the end of the 5-year Strategic Plan (2010-2014):

Key Outcomes	
1	ISO 14001 Certification
2	All new regional campuses will achieve BCA Green Mark Platinum Award
3	Establish green ITE through data centre design and cloud computing
4	Introduce ES in the new career-cluster curriculum strategy
5	100% of courses will have some topics on ES
6	Enhance ITE teaching staff's ES competence through project
7	Student and staff involvement in significant community-based ES projects



Environment Sustainability Culture

ITE Eco-Conference 2014

"Protecting Our Biodiversity. Preserving Our Heritage" was the theme for the 2014 ITE Eco-Conference. The conference was held on Thursday, 16 Oct 14 at ITE College West. The theme of the conference aimed to remind participants of the rich biodiversity that is a great legacy inherited from our forefathers, and that we should protect this and preserve the legacy for the next generation. A total of 200 staff and 450 students attended this conference.

Some highlights of the event include the launch of the 2nd Market Place, an online platform for trading of 2nd-hand items; an eco exhibition; the *"Animals in Their Natural Habitat"* Photography Competition; and a lamp recycling drive.

The main conference featured three speakers, Mr Wong Tuan Wah, Director Conservation, National Parks Board, Dr. Sonja Luz, Director of Conservation and Research, Wildlife Reserves Singapore and Dr Chris Shepherd, Regional Director, TRAFFIC Southeast Asia. who spoke on the topic *"Illegal Wildlife Trade and Governmental Action"*.



Mr Wong Tuan Wah speaking on *"Conserving Our Natural Heritage ... Our Journey"*



Dr. Sonja Luz shared *"From Crabs to Elephant – Conservation Dimensions from a Veterinarian's Perspective"*



Dr Chris Shepherd spoke on the topic *"Illegal Wildlife Trade and Governmental Action"*

Environment Sustainability Culture

ITE Eco-Conference 2013

This annual ITE Eco-Conference was held on Friday, 19 Jul 13, at ITE College East. The objective of the conference was to foster collaborations with relevant government agencies, industry and community interest groups through sharing and exchanging eco knowledge and practices.

The theme for the conference was *"Think Green, Live Green. It Starts with Me."* Attended by some 300 staff and 700 students, the highlights of the event included an eco exhibition, terrarium workshops, 3R (Reduce, Reuse & Recycle) activities and last but not least, the main conference in the afternoon.

The main conference featured four distinguished speakers Mr Yuen Sai Kuan, Director, 3P Network, National Climate Change Secretariat, Prime Minister's Office; Mr Richard Phua, Associate Director, Squiremech Pte Ltd; Mr Jack Sim, Founder of World Toilet Organization; and Mr Liak Teng Lit, Group Chief Executive Officer, Alexandra Health System. The speakers addressed four different topics ranging from toilet hygiene to green building design.



(From left to right) Mr Liak Teng Lit, Mr Richard Phua, Mr Bruce Poh, Mr Yuen Sai Kuan, Mr Jack Sim



Performance by the Soul Percussion Team from ITE College East - using recycled items to create music

Environment Sustainability Culture

Youth Environmental Networking Session 2014 (YENS)

The 3rd YENS was held at ITE College East on 24 Jan 2014. This session, involving all the Environmental/Green Club students from the three ITE Colleges, provided a platform for the 'Green minded' students in ITE to get-together. Mr Eden Liew (Principal, ITE College East), in his opening speech, shared the impact of climate change and encouraged students to contribute to environment conservation in their own ways. Mr Liew said: *"In ITE, there are various platforms for you to participate in environmental conservation. You can join the Environmental/Green Club, you can work on environmental projects, participate in community activities, competitions and events"*.

At this platform, six students were presented the ITE Youth ECO Ambassador Award. This award recognizes students who had taken the lead and contributed in driving environmental conservation activities. Two recipients of this award, Phua Jia Min and Abdul Lukmanul, shared their experience in leading the Green Club and the South East Seed Fund environmental project respectively.



Winners of the ITE Youth Eco Ambassador Award 2013 with ITE Management representatives.

(From left to right) Toh Ghim Hsiang (ITE College West), Samuel Poh (ITE College East), Mr Eden Liew (Principal/ITE College East), Dr Goh Mong Song (Deputy Principal/ITE College West & Chairman, ITE Environmental Sustainability Committee), Grace Lee (ITE College Central), Phua Jia Min (ITE College Central), Abdul Lukmanul (ITE College East)



Happy participants of the networking session



Jia Min shared her experience in leading the Greenery Club at ITE College Central

Environment Sustainability Culture

Youth for the Environment Day 2014

The 2014 Youth for the Environment Day (YED) celebration was a campus wide celebration for ITE College West (CW). On 22 April 2014, CW took this opportunity to commemorate the inauguration of the **OWN IT!** Campaign. **OWN IT!** is a College-wide movement targeting to imbue a sense of ownership and social responsibility amongst youth in the school. Two teachers and 30 students from Delta Senior School, 60 Choa Chu Kang Zone 3 residents and NEA (South West regional office) were invited to join in the celebration.

Dr Yek Tiew Ming, Principal, ITE CW, opened the celebration by delivering the Minister for the Environment & Water Resources' YED speech. Celebration activities ranged from performances to raising awareness on environmental issues, and a creative tray-return flash mob to encourage students to return their trays after meals. There were also Food Fest and booths set up to spread the green messages. Information on how to mitigate global warming, "No Plastic Bag" Day project, "Save The Pen" project, upcycling items and green games booths delivered the important environmental messages to visitors.



A lively skit bringing across message of anti-littering



Green Club students sharing their project "Save the Pen"



Students helped to pick up litters in the neighboring estate

Environment Sustainability Culture

kNOw Cleaners' Day 2014

In partnership with the "Keep Singapore Beautiful Movement" (KSBM), ITE observed "kNOw Cleaners Day 2014" on 30 April 2014. At ITE College East, 58 cleaners enjoyed a morning off as they watched performances put up by the students and had fun with games. They were also rewarded with a 20-minute massage by students from the Beauty & Wellness course. Students together with the management team and Guest-of-Honour, Ms Irene Ng, Grassroot Adviser of Tampines GRC and Mr James Soh, Chairman, KSBM, went around the campus and its perimeter to pick up litter.



Ms Irene Ng (standing, in orange top) greeted the cleaners who were enjoying their 20-mins massage



The cleaners immersing themselves in the fun of games

At ITE College Central, led by the college Principal, Dr Ang Kiam Wee, the management team, together with staff and students, took over the job of the cleaners to clean up the campus



Environment Sustainability Culture

2014 International Day for Biological Diversity

ITE College West (CW) commemorated the **International Day for Biological Diversity (IBD)** on 22 May 2014 with a series of green activities. Dr Yek Tiew Ming, Principal, ITE College West, and Dr Goh Mong Song, Deputy Principal, ITE College West, jointly planted a native tree, Sea Teak. There were also exhibitions on gardening and vertical gardening, sustainable garden workshop and tasting of Kedondong fruits which were harvested from the Kedondong trees planted during the 2013 IBD. In addition, the CW Community Garden was officially opened on this day.



Dr Yek Tiew Ming (left) & Dr Goh Mong Song jointly planted a Sea Teak

Opening of the CW Community Garden (right picture)



CW students shared with Dr Yek and Dr Goh about Vertical Gardening



Gardening workshop

Environment Sustainability Culture

World Environment Day (WED) 2014

World Environment Day (WED) is a widely celebrated global day for positive environment action. It's an opportunity for everyone to care for the Earth and to become agents of change. The theme for the 2014 United Nations Environment Programme (UNEP) World Environment Day was "Small Islands and Climate Change". It aimed to encourage greater understanding of the importance of smaller island developing states and help to protect the islands in the face of growing risks and vulnerabilities, as a result of climate change. Also in conjunction with the International Day for Biological Diversity, on 23 May 2014, ITE College East commemorated the two key environmental events with the following activities:

Mass Tree Planting

In collaboration with National Parks Board (NParks), ITE College East, led by Principal, Mr Eden Liew, planted 50 trees saplings together with staff and students. The 50 trees saplings, provided by NParks, were planted along the Simei Park Connector. These trees signify the green efforts that the College is actively committed to.



Eco Activities by the Eco Sky Garden

Staff and students from the Environmental Club conducted various workshops at the Eco Sky Garden to create awareness of the World Environment Day and the need to conserve our environment.

Staff Eco Ambassador, Mdm Saadiah Bawany (front extreme left), together with a group of Environmental Club students cooked lunch for all participants using the herbs harvested from the Eco Sky Garden.



Environment Sustainability Culture

Monthly Recycling Days and Garage Sales

This is an initiative by the ITE College East (CE) Environmental Club to inculcate habit of recycling. On the last Friday of each month, Environmental Club students will set up dedicated bins for different types of recyclable waste (plastics, papers, eWaste, glass etc) at the Eco Park. Staff are encouraged to have their own recycling bins at their respective work areas and sort their recyclable waste to be disposed off on the monthly Recycling Day. Instead of throwing away used items that are still in good condition, Garage Sales are another platform to encourage meaningful reuse of items. Items are contributed by staff or students for sale. These items are put up for sale or exchange where 50 percent of the sales proceed goes to ITE College East's Needy Students Fund.



CE Environmental Club students facilitating the waste sorting process



CE Environmental Club team in-charge of the Recycling Days and Garage Sales

Environment Sustainability Culture

Coastal Clean Up

Coastal Clean Up is one regular environmental activity that our students are involved in. It aims to inculcate awareness of environmental conservation efforts and habits of keeping the environment clean.



Changi Beach cleaning on 15 August 2014. Activity was organised by the Mechanical Technology Department at ITE College East



Kranji Shoreline Clean up on 26 Apr 2014. Greenery Club members from ITE College Central joined this activity organised by Nature Society (Singapore) in conjunction with Earth Day

Environment Sustainability Culture

Sharing on ITE College East's Green Initiatives

As part of our environmental outreach, ECO staff ambassadors Mdm Saadiah Bawany and Mdm Lim Juat Fong conducted an Eco sharing session at Hougang Secondary School on 7 February 2014.

The Team shared the College's environmental programmes and showcased creative environmental projects to about 300 Secondary Two students from the school.



Mdm Saadiah (left picture) and Mdm Lim (right picture) shared on ITE's environmental initiatives



Secondary Two students were involved in the talk and project sharing arranged by their teacher

Environment Sustainability Culture

Tengah Nature Way Project

In support of the National Parks Board (NParks) project - Tengah Nature Way, ITE College West (CW) planted 20 plants at its premises on 22 Nov 2013. The Tengah Nature Way project aimed to galvanize effort in creating a nature connection between Bukit Timah nature reserve to the Jurong end of reserve. This project encourages the growing of plants that will soften the urban area and also to attract charismatic birds and butterflies, thereby improving the quality of living environment in our city.



Dr Yek Tiew Ming, Principal, ITE College West, addressing participants

Hands-on planting by ITE College West management team



20 plants were planted (left picture) and Green Club students participating in planting (right picture)

Environmental Sustainability Competencies

National Climate Change Youth Conference 2014

The National Climate Change Youth Conference (NCCYC) is a biennial conference that aims to educate and engage youths on climate change. The NCCYC sought to deepen the understanding of climate change among youths, especially on the challenges and trade-offs that are involved in addressing this problem. The theme for this conference addressing climate change globally and locally was: “*From individual action to a global agreement*”, emphasises the role of youths in addressing climate change at the individual, national and global levels.

The NCCYC 2014 was held on 31 May 2014 at ITE College East. The Guest-of-Honour for this event was Ms Grace Fu, as Second Minister for the Ministry of Environment and Water Resources. ITE students from the three Colleges joined students from other schools and academic institutions at this conference. Besides hearing from the experts, participants broke out into different groups where each role-played as officials from various countries, responsible for environment matters, negotiating at a United Nations Framework Convention for Climate Change (UNFCCC).



ITE participants with Minister Grace Fu (standing 4th from right) and Mr James Soh, Chairman, NYAA (1st from left)

Guest-of-Honor, Minister Grace Fu, participating at one of the breakout sessions that was debating on cutting carbon emission

Environmental Sustainability Competencies

Youth Environmental Stewardship Forum 2014

The Youth Environmental Stewardship (YES) Forum 2014 took place on Saturday 16 August 2014 at ITE College East. It aimed to motivate and inspire youths to play a part in protecting our environment in practical ways.

Some 120 students from Secondary Schools, Junior Colleges, Polytechnics and ITE attended this forum to understand the green urban living and lifestyle in order to be responsible environmental stewards. Young speakers of the forum also shared about the ecological crisis especially in the urban contexts. Besides that, ITE College East students from the 2014 Youth Expedition Project trip shared their tree planting experience in Inner Mongolia too. There were also interactive discussions, hands-on experiential learning and reflection where the youths brainstormed, shared ideas and presented creative green lifestyle solutions.

The YES forum is a post trip event organised by students from the Green Desert Youth Expedition Project, guided by young leaders from Fellowship of Evangelist School (FES) and supported by the ITE College East Environmental Club and Asian Journeys Ltd.



Participants and organising team of the YES Forum 2014

Environmental Sustainability Competencies

ECO Tampines Central Light Bulb Project

On 3 Dec 2013, a group of staff and students from the Electrical Department at ITE College East used their skills and resources to help the community. The team helped households in Tampines Central in changing old light fittings and bulbs to new energy saving light fittings and bulbs. The ECO Tampines Central Light Bulb Project was organized by the National Youth Achievement Award (NYAA) Gold Award Holders' Alumni (GAHA) and supported by ITE.

A total of 91 light bulbs were changed and 43 new light fittings were installed.



Electrical student s at work installing the light fittings



Electrical students using their skills learned in class for the job



The team of ITE staff and students supporting this project (photo with the beneficiary)

Environmental Sustainability Competencies

Eco-Friendly Bio Pond

A group of students, Sebastian Lim, Melvin Thong, Ammar B Yazid, Luqman Hakim and Leroy Tan from the Facility Technology course manifested ITE's Environmental policy ethos by using their skills to care for the environment. The five cleaned and decorated a pond next to Café 1 at ITE College East.

By cleaning and decorating the pond, the group aimed to:

- Reduce & control pond algae
- Be Eco-friendly
- Reinforce that recycled materials could be put to good used
- Create a nice ambience for diners at Café 1



The 'revamped' Eco-Friendly Pond (photo left)

Students at work (photo bottom)

Recycled materials such as used water bottles, flower pots, recycled marble concrete, recycled drainage cells and PVC pipes, were used for their project. Even the sand used for the concrete mix was collected from the college yard.



Environmental Sustainability Competencies

Project with Wildlife Reserves Singapore

Portable Bird Nest Monitoring System

This project is a portable monitoring device with wireless camera mounted on extensible pole for ornithologists to monitor bird breeding cycles. This system provides ornithologists and bird park keepers a safe working environment to monitor bird's nest without having to climb up a ladder to view the nest. This reduces the disturbance to the birds in the nest and increases the success rate of hatching. It also improves the work safety environment for staff.

The images captured by the monitoring system can also be viewed on mobile devices. A lighting feature was included in the system to allow users to view the bird nest at places where light is limited. This device is powered by rechargeable battery with an external charging device.

The team of staff and students from the Electronics Department at ITE College West took six months to study, design and fabricate this Portable Bird Nest Monitoring System.



Staff and students of the project team testing the system on site

Environmental Sustainability Competencies

Project with Wildlife Reserves Singapore

Reptile Egg Incubator

Reptile eggs in the Singapore Zoo were incubated using two imported reptile egg incubators. However, the problem of incubation arose because of moulds forming on the eggs during incubation resulting in adverse health conditions for the eggs. There was also water trapped in the incubator and the zookeepers had to open the doors of the incubators regularly to ventilate the system

The objective of the project was to increase the hatching rate by improving the incubator system. The team successfully designed a new incubator using a discarded vertical cooler. One unique feature of the incubator is an automatic air-exchanger system that facilitates ventilation once every four hours. The water-trap problem was also resolved by drilling small holes on the cover of each container to draw out excess moisture. The first incubation trial commenced on 10 July 2013 with a hatch rate of 75%. To date, various species of reptiles (River Terrapins, Milk Snakes, Malayan Box Turtles and Leopard Geckos) have been successfully hatched.



The upgraded Reptile Incubator



Environmental Sustainability Competencies

Project with Wildlife Reserves Singapore

Mechanized Gate @ Lion Den

In the lion's den at the Singapore Night Safari, there are compartments for the lions to move between their resting point and the display area. Every day, the keepers have to pull the counter weight to lift the sliding gate that is attached to it. This allows the animals to move between the lion cage and the display area. The manual work of pulling and pushing of the counter weight of 50 kilograms daily is tiring to the keepers and could cause injuries to both the keepers and the animals.

The objective of this project was to automate the weight pulley mechanism to allow the keepers to control the gate. In addition, the design of the system had to allow manual engagement of the pulley mechanism should there be an emergency. A group of mechatronics staff and students from ITE College West took nine months to study, design and fabricate the mechanism. On 29 August 2012, together with the project students, the team successfully installed the mechanism device to control the gate with minimum disruption to the zoo-keepers and the animals.



Staff and students of the project team at work with the staff members from Wildlife Reserve Singapore

Environmental Sustainability Competencies

Green Energy Mobile Office & School (GEMOS)

Developed by lecturers and students from ITE College West, together with Singapore Environment Institute and Green Energy Industries, this portable air-conditioned office has a built-in compact integrated Solar-Hydrogen-Fuel-Cell Self Sustainable Power System that is powered by sunlight.

The 5-kilowatt solar panel array mounted on the roof harnesses solar energy to generate hydrogen through electrolysis. Harvested energy is stored in metal hydride canisters that drive fuel cells to regenerate electricity. In the day, the office is powered by solar energy. In the absence of sunlight at night, the office is powered by the stored electricity.

This demonstrated the feasibility of a green solar energy system that has no green-house gas emissions. It also demonstrated the Green energy sustainability and strengthened staff capability & competency in clean energy system integration. Eighty students gained this priceless authentic learning experience in this advanced green energy technology project development that was shared at many events.



The self-sustained mobile office and school is housed in ITE College West



Equipment and devices housed in the GEMOS to harness solar energy

Environmental Sustainability Competencies

Sustainable Energy Learning Journey in Denmark

A group of seven students, from the School of Engineering in the three ITE Colleges, embarked on a sustainability trip to Denmark, from 23 May to 8 June 2014. This sustainable energy programme was planned and coordinated by our Denmark partner, Youth for Understanding (YFU). The ITE team was joined by 11 other students and two lecturers from the Delaware Technology Community College and Hillsborough Community College, USA.



In February 2011, the Danish government announced the "Energy Strategy 2050" with the aim to be fully independent of fossil fuels by 2050 and targets 50% wind power in the electricity system by 2020. This declaration showed the determination of the Danish government to invest in renewable energy technology. Participants of this trip travelled to the cities, Fyn, Thy, Aarhus and Copenhagen to learn about Denmark's efforts and innovation in renewable energies, in particular, wind energy, solar energy and bioenergy technology.

During this trip, our students were also hosted by Danish families who extended warm hospitality to them. This gave the students great opportunities to experience the Danish culture, making this trip even more meaningful.



Environmental Sustainability Competencies

Environmental Workshops for ITE Students

An initiative under the ITE Youth Environmental Envoy Programme (YEEP), this workshop was conducted through fun, interactive games and activities, with an aim to promote awareness, concern and care for the environment through instilling our students the essential knowledge on environmental conservation.

Green practices in environment conservation, such as waste management, climate change, energy saving and others, were discussed during the workshop with learning values to inculcate the right habits, attitudes and responsible actions in the protection of the environment in the school, at home and the community.



The inaugural Environmental Workshop was held at ITE College East on 17 June 2013 and it was attended by 94 students from the three ITE Colleges.



The second workshop, held at ITE College Central on 25 July 2014, saw a participation of another 83 students from the three ITE Colleges

Environmental Sustainability Competencies

Overseas Environmental Conservation Trip To Balikpapan

The environmental conservation trip to Balikpapan, East Kalimantan, was another key initiative under the ITE Youth Environmental Envoy Programme (YEEP). Twenty YEEP student leaders from the three ITE Colleges embarked on this trip spanning 17 - 26 Sep 2013 for a holistic understanding of the practical processes of conservation biology. YEEP leaders visited the mangrove vegetation and performed phonological studies of the mangrove plants under the guidance of professional researcher.

Other conservation study activities included bat misting and identifying the feature of bats caught as well as surveying the local fishermen, irrawaddy dolphin and proboscis monkey. The YEEP leaders also experienced trekking in the primary mangrove forest and Sungei Wain. Returning from the trip, the young leaders equipped themselves with better awareness and essential knowledge to champion environmental projects.



Group photo of YEEP leaders with their teachers and guide

Environmental Sustainability Competencies

Overseas Environmental Conservation Trip To Perak

The second batch of 27 Youth Environmental Envoy Programme (YEEP) leaders embarked on their overseas environmental conservation trip to Kuala Sepetang, Perak, West Malaysia, from 2 – 9 January 2015.

The YEEP leaders explored the fauna and flora in the Matang Mangrove Forest Reserve.



Replanting of tree saplings

This mangrove forest is widely recognised as the best managed sustainable mangrove ecosystem in the world. The YEEP leaders participated in activities such as, tree measuring and replanting of tree saplings under the reforestation programme for this mangrove ecosystem. They were also immersed in the biodiversity of the Kuala Gula Bird Sanctuary, a haven for migratory water and forest birds. This trip also exposed the YEEP leaders to the aquaculture industry, where they had a good understanding of the various fishing methods and sea creatures. The YEEP leaders also had an opportunity to interview the villagers to find out about their lifestyle, mangrove conservation and the impact of Eco Tourism on their livelihood.



A Group Photo of the 2014 YEEP Leaders

Environment Sustainability Collaboration

ITE Joins WWF “Green Leader” Initiative

On 22 July 2014, ITE and World Wide Fund for Nature (WWF) Singapore signed a three-year Memorandum of Understanding to pilot the campus category of the internationally-recognised Eco-Schools Programme. ITE is the first post-secondary institution in Singapore to embrace this programme.

The Eco-Schools Programme with emphasis on student leadership and community outreach, is administered locally by WWF-Singapore. Schools that successfully implement the programme, guided by a systematic seven-step framework for planning and taking action, are awarded the prestigious and internationally-recognised Green Flag.

This programme complements ITE's existing green initiatives in developing an earth-friendly consciousness and a sense of environmental ownership among ITE students.



The ITE-WWF MOU is endorsed by: Mr Bruce Poh, CEO, ITE (2nd from left) and Ms Elaine Tan, CEO, WWF (2nd from right)

Group photo of Eco-Schools participants, ITE and WWF representatives with the WWF mascot

Environment Sustainability Collaboration

MOU with LIAS and NParks



MOU signatories: Dr Leong Chee Chiew (1st from right) representing NParks, Mr Eden Liew (2nd from right) representing ITE and Mr John Tan (2nd from left) representing LIAS. The signatories had a group photo with Minister Lim Swee Say, who witnessed the tripartite collaboration

On 7 September 2013, ITE signed a Memorandum of Understanding (MOU) with the Landscape Industry Association of Singapore (LIAS) and National Parks Board (NParks) to groom young talent for the landscape industry. Under the agreement, the Garden City Fund, an independent registered charity and Institution of Public Character in Singapore which is supported by NParks, as well as member companies from LIAS, will offer 10 scholarships every year, worth \$12,000 each, to students pursuing ITE's *Nitec* in Facility Technology (Landscaping Services) course. ITE students in the programme will also be offered attachment opportunities with member companies from LIAS to better prepare them for a career in the sector. NParks and LIAS also committed to set up the ITE Landscape Inspiration Centre at ITE College East, as well as share expertise in landscape services and other related disciplines to aid curriculum development. It was a monumental moment as the Guest-of-Honor, Minister Lim Swee Say, Minister in the Prime Minister's Office and Secretary-General of the National Trades Union Congress, witnessed the signing ceremony between the three organisations.

Environment Sustainability Collaboration

Clean and Green Singapore 2015

The Clean & Green Singapore 2015, themed “Cherishing our Home, Safeguarding our future” was held on 8 & 9 Nov 2014 at the open space next to Lot 1 Shoppers’ Mall. The launch was held in the South West District and ITE College West was the lead college supporting this launch.

Our students, Danniell Khor from *Nitec* in Facility Technology (Landscape Services) and Mohd Adam Shah Bin Asri from *Higher Nitec* in Service Management, represented ITE to launch the Clean & Green Singapore 2015 with Prime Minister Lee Hsien Loong. PM Lee also launched the Sustainable Singapore Blueprint 2015, which outlines the national vision and plan for a more liveable and sustainable Singapore, to support the diverse needs and growing aspirations of Singaporeans.

Other ITE students were also involved as volunteers helping to man the Clean & Green exhibit booths. ITE College West, too, showed off their projects - the Eco Car that participated in the Shell Eco Marathon and the 2nd Market Place, an initiative to promote reuse and recycling of used items amongst ITE staff and students.



Danniell (1st from left) and Mohd Adam (2nd from left) taking a selfie with Prime Minister



Students from ITE College West explaining to Prime Minister the Eco Car for Shell Eco-Marathon Challenge

Environment Sustainability Collaboration

Clean and Green Singapore 2014

The launch of 2014 Clean and Green Singapore Carnivals, held on 26 & 27 October 2013, was a kick start of NEA's annual environmental awareness and action campaign of the following year. ITE supported the two-day community event with a series of activities such as recycling craft workshop, recycled vehicle competition, Green Bank machine, Mobile Robot Racer. ITE also choreographed a flash mob on anti-littering, designed a stage game "Are you Green" and designing a QR Quest. Our Prime Minister, Mr Lee Hsien Loong, was the Guest-of-Honor of this event. PM Lee visited many of the ITE projects and activities at this carnival.



PM Lee enjoying the ITE Recycled Vehicle Race



Members of the public participating in the recycled vehicle competition as a family – DIY vehicle for the race



Competitor's Recycled Vehicles made from Tetra Pak Used Beverage Cartons running on circuit board prepared by the ITE College East Environmental Club students.

Environment Sustainability Collaboration

Clean and Green Singapore 2014

The Recycling craft workshop that teaches the making of accessories with used electronics training materials such as wires and cables is ever popular among visitors. ITE's Green Bank Machine that is able to recycle tin cans and plastic bottles was also highlighted in the speech of the event host. In addition, Ms Catherine Soh, Course Manager, Electronic Systems & Services, ITE College East, was among the 10 Environmental Champions highlighted at this carnival for outstanding environmental contributions. As Environmental Champion, Ms Soh was invited to join PM Lee and other Environmental Champions on stage to launch the Clean & Green Carnival 2014.



Mdm Saadiah Bawany, staff in-charge of the College East Environmental Club, explaining to PM Lee how computer cables could be turned into useful accessories.



PM Lee recycled a plastic bottle with the ITE Green Bank Machine



A group photo (with Minister Lim Swee Say) of the key staff and students who were involved in supporting this carnival



Ms Catherine Soh (5th from right) joining the VIPs on stage to launch the carnival. Screen showed a citation of her environmental work.

Environment Sustainability Collaboration

Clean & Green Singapore (CGS) Schools Carnival 2014

In 2014, the CGS Schools Carnival was held on 4 & 5 Nov at ITE College Central. Some 3000 students and staff from MOE schools congregated in ITE College Central for the carnival. The students have the opportunity to experience the award-winning Eco campus and its educational Eco-Walk stations. ITE students also volunteered as event helpers. ITE College West's Project – 'Air Powered Transporter' with ZAP Piling Pte Ltd, and ITE College East's project 'Carton Rush mobile app' with Tetra Pak Asia, received the 1st and 3rd prize in the Environmental Champion Project Competition (Tertiary category) respectively.

ITE College East & Tetra Pak South East Asia jointly received the NEA's Corporate and Schools Partnership (CASP) award for the first year of partnership while ITE College West received a Silver Sustainable Award for its 5 years of partnership with Fuji Xerox.



ITE booth showcasing environmental projects from College Central



Guest-of-Honor Minister Grace Fu (2nd from right) and Mr Bruce Poh, CEO ITE (2nd from left) visited the Environmental Project booth set up by staff and students from ITE College East

Environment Sustainability Collaboration

Clean & Green Singapore (CGS) Schools Carnival 2013

ITE has been a regular partner and venue host for the Clean & Green Singapore (CGS) Schools Carnival since 2011. The CGS Schools' Carnival is the culmination of environment programmes for the year and it is organised by National Environment Agency (NEA) together with schools and partners. The carnival showcases the best of NEA's environmental programmes for schools (pre-schools to tertiary institutions), and is a platform to bring together corporate partners, educators and Non-government Organisations to network, share environment projects and renew their commitment to collaborate on programmes to nurture a sense of environmental ownership in the young. In 2013, the CGS schools carnival was held at ITE College West, on 12 and 13 November 2013. The event was graced by Ms Sim Ann, Minister of State, Ministry of Education and Ministry of Communications and Information.

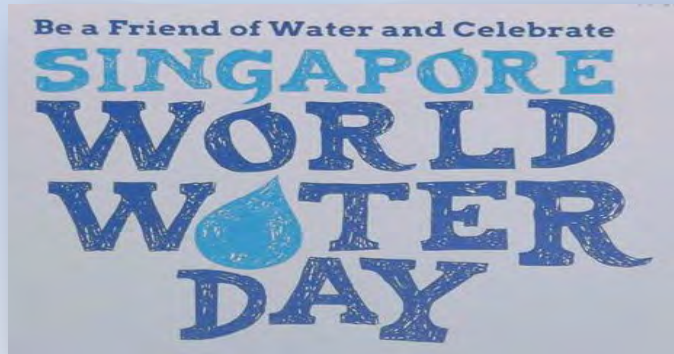
The Green Promoter, a collaboration between ITE College West (CW) and ZAP Piling Pte Ltd, received the 3rd Prize in the Environmental Project Competition 2013. CW and ZAP Piling Pte Ltd jointly received a Silver Award under NEA's Corporate and Schools Partnership Programme for their continual partnership in promoting environment care.



Environment Sustainability Collaboration

Singapore World Water Day 2014

Singapore held its first World Water Day in 2011. The 2014 World Water Day was celebrated in Singapore on 15 March.



In collaboration with the Public Utility Board (PUB), students from the three ITE Colleges designed water conservation messages which were pressed into 10,000 badges. The badges were arranged to form a montage measuring 7m by 5.1m, and entering into the Singapore Book of Records. Five key sites were host to a myriad of activities for the community to be involved in the water cause and support PUB's current call in urging everyone to conserve water. Supported by ITE's Senior Management team, staff and students participated in the North Zone activities site, at Khoo Teck Puat Hospital, that was graced by Minister for Foreign Affairs and Minister for Law Mr K Shanmugan.



(photo top) Badges with water conservation messages - made by students from the three ITE Colleges

(photo left) Staff and student participants from the three ITE Colleges

Environment Sustainability Collaboration

The BiG Chase

The BiG Chase, held at ITE College Central on 17 January 2015, is an environmentally themed scavenger hunt activity organized by the Build It Green (BiG) Club, supported by Star Horizon Learning and ITE. The BiG Club was set up by the Building & Construction Authority (BCA) to nurture green building advocates among youths, Executive Council members of this club comprises students from the five Polytechnics. The event started with a talk by BCA on Green Buildings and BCA's Green Mark Scheme, followed by a scavenger hunt across the Eco Stations in ITE College Central where the various green features were located. Eighty BiG Club members (students from the ITE, Polytechnics, Junior Colleges and Universities) participated in this activity. Both ITE College East Environmental Club and ITE College Central Greenery Club helped to facilitate this activity, performing the role of station game masters.

Eventually, Team Anchor from NUS and Team Totatoes from Hwa Chong Institution emerged as Champion and 1st Runner Up respectively. Team BYSJ from Temasek Polytechnic and Team Greenscape from ITE College East both took the 3rd Place with a tie.



Dr Ng Kok Wee, Lecturer at Temasek Polytechnic addressed the participants



The BiG Chase team who was behind the scene



Participants had to answer built environment related questions and carry out required actions in order to clear each station

Environment Sustainability Collaboration

School Green Day 2014

For the very first time, the Singapore Environment Council organised its annual School Green Award Ceremony in collaboration with ITE. The School Green Day is held annually to reinforce environmental initiatives and awareness amongst Pre-schools, Primary, Secondary, Polytechnics, ITEs and Junior Colleges.

Held at ITE College East (CE) in 2014, the School Green Day encouraged students to pledge to save the environment. As part of this initiative, 15 booths were set up by various participating schools to exhibit their pledges, which could be made from recycled materials or in video or song format. The CE Environmental Club set up a booth showcasing crafts made from recycled materials and the CE Angklung Club performed three musical tunes relating with the environmental theme for the ceremony. The event was attended by about 500 people from the Private and Public sectors – namely educators across Singapore, key partners, volunteers and government agencies.



Guest-of-honour, Second Minister for the Environment and Water Resources, Ms Grace Fu, visited the recycling craft booth set up by students from CE Environmental Club



Award recipients and guests forming the Singapore map supporting the ENVision

Environment Sustainability Collaboration

South East Clean & Green Singapore Carnival (CGS) 2015

ITE, a regular event partner for the annual South East CGS, participated in this carnival held at the Changi City Point Atrium on 15 & 16 November 2014. ITE College East (CE) was the lead college supporting the annual South East CGS carnival.

A highlight of this year's carnival was the launch of the "Eco Kepalas @ South East Schools", a three-year partnership (from 2015) for the National Environment Agency (NEA) and the South East Community Development Council (CDC) to support students in identifying gaps and challenges on the environmental front. Students from participating schools, who were the appointed Eco Kepalas (The Malay word "Kepala" translates to "head") or environmental champions will be attending design thinking workshops and immerse in community settings to front initiatives tackling environmental challenges. They will also receive funding support for their environmental projects.

At this 2-day fun-filled South East CGS carnival, nine winning entries for the Waste-To-Craft Creativity Competition 2014, organised by ITE in partnership with NEA, South East CDC and Tetra Pak South East Asia were displayed. CE's Environmental Club setup a recycling craft workshop, a recycling vehicle race and a children's corner that taught the making of windmills with used drinks cartons. An environmental mobile application and a computer developed by ITE students were also put up for public engagement and environmental education. There were also a booth set up to share on the food waste recycling project undertaken by students from the CE Entrepreneurship Club.



Students from CE Environmental Club sharing with public on the winning art piece made from recycled materials



Workshop that teaches the making of accessories with recycled material

Environment Sustainability Collaboration

Water Innovation Challenge 2014

The inaugural Water Innovation Challenge was organized by the WorldSkills Foundation and Healthabitat, with support and partnership from World Plumbing Council, RMIT University, and ITE. The challenge aimed to pioneer and demonstrate how young professionals with different skill sets could be integrated to work together to generate real sanitation solutions to improve public health in rural areas.

The event was held from 3 - 5 June 2014 at ITE College East. For three days, members from the Australia and USA teams challenged and demonstrated their skills and design innovation in the areas of Sanitation and Plumbing. Each team is made up of young skilled professionals in plumbing and related Engineering and Design fields.

They built hand pumps and rainwater collection systems similar to those which are used in the Healthabitat Sanitation Studio programmes in Nepal and Bangladesh. The teams also tackled solar-powered pump construction, and created supporting documents for maintenance and repair. Their designs were presented to the judges on the 3rd day of the competition.

Team USA scooped the first Water Innovation Challenge title. It will go on to help implement its solutions for the focus communities. All project documentation produced during the Challenge would be shared.



Environment Sustainability Collaboration

Green Thumbs 2013

Green Thumbs is the event of the year for the landscape industry. This annual event by Landscape Industry Association of Singapore (LIAS) and National Parks Board (NParks)'s Centre for Urban Greenery and Ecology (CUGE) was started in 2006 to celebrate the development journey of the landscape industry. The event brings together the whole spectrum of the landscape industry, from landscape design to floristry, to showcase companies and highlight productivity improvements within the industry.

Green Thumbs 2013 was held at ITE College East on 7 September 2013. One highlight of Green Thumbs 2013 was the Skills Championships. As in previous years, the championships showcased various competencies of landscape workers, from tree climbing to landscape design and implementation, to flower bed maintenance, excavator operations and many more. More than 2000 participants took part in the various skills competitions to pit their skills against one another as they competed for the titles. At the event, there was also a Workplace Safety and Health Council Forum, as well as a floristry competition with some 100 participants. The Workforce Development Agency, in conjunction with landscape companies, also held a career fair for individuals interested in joining the landscape industry.



Participants of the Skills Competition



Participant of the Floristry Competition

Environmental Sustainability Collaboration

Singapore International Energy Week 2013

The Singapore International Energy Week (SIEW) is an annual week-long platform for energy professionals, policymakers and commentators to discuss and share best practices and solutions within the global energy space. The Singapore International Energy Week brought together more than 11,000 attendees from over 60 countries, comprising world policymakers and energy leaders, as well as industry professionals and academics in a search of solutions and strategies for “Shaping a New Energy Landscape”. Organised by Energy Market Authority, the annual event was held on 28 Oct 2013 to 1 Nov 2013, at Marina Bay Sands. As part of the programme to support ITE’s Environmental Sustainability Initiatives to develop ECO awareness in our students and staff, our students were involved in this event. Five energy-efficient student projects from ITE were showcased and student leaders attended the “*In Dialogue with Youth*” forum where they exchange views on energy conservation with Mr S Iswaran, Minister in the Prime Minister’s Office and Second Minister for Home Affairs and Trade and Industry.



Environment Sustainability Collaboration

Longest Mural Made From Recycled Packaging Materials

In celebration of the 2013 National Day, ITE College Central developed the longest mural with recycled materials to enter into the Singapore Book of Records.

Preparations started in Apr 2013, where each class was assigned a plywood sheet to build a mural to highlight one of the 48 years that Singapore went through since independence.

The students researched and created murals based on the happenings in the year they chose. The integration of the mural was completed on 5 Aug 2013 with the boards laid together in ITE College Central, measured 105.5m. This event was held in partnership with Yeo Hiap Seng (Singapore) Pte Ltd.



Environment Sustainability Collaboration

Salvation Army - Reusing & Recycling

This collaboration with the Salvation Army aimed to raise staff and students awareness in reusing and recycling. Held at the three ITE Colleges, the first run on 18 and 19 July 2013 saw the collection of used clothes. The next run on 24 and 25 Oct 2013 run was for sport equipment. Subsequently, Christmas gifts and toys were also collected. In return, Salvation Army provided gifts to ITE students to bring along for their overseas trips under the Global Education Programme.



Student helpers managing and sorting the collected items



Ready to send the collected items to Salvation Army

Environment Sustainability Collaboration

Litter-Free Sports Fiesta @ South West 2013

The inaugural Litter-free Sports Fiesta @ South West took place on 1 Sept 2013 at the ITE College West street soccer court. This event, organised by the South West Community Development Council and the National Environment Agency, supported by ITE College West, aimed to encourage youth to take responsibility in ensuring community spaces like sports facilities are litter-free.

Senior Minister of State for Health and Mayor for South West district, Dr Amy Khor, officiated the event. Dr Khor said: "Littering is inappropriate behaviour in our community." Youth environmental ambassadors at the event encouraged those present to pickup their own litter. These youth ambassadors will continue to reinforce the anti-littering message at community sports events.



Youth Environmental Ambassadors with Guest-of-Honour, Dr Amy Khor

Student Achievements

2014 HSBC/NYAA Youth Environmental Award (Merit)

Teng Wee Keat, an active Exco member of ITE College Central's Greenery Club, was awarded the 2014 HSBC/NYAA Youth Environmental Award (Merit) for his leadership and contributions to the environment. Wee Keat is passionate about the environment and he regularly helps in managing the College's community garden. He also organised gardening and orchid knowledge workshops for club members and members of the public.

Wee Keat also helped raise awareness of environmental issues among the community by leading an interest group from Toa Payoh East Zone 5 RC to construct a green house with recycled materials. As a student leader under the ITE Youth Environmental Envoy Programme (YEEP), Wee Keat went on an environmental trip with a group of 20 YEEP student leaders to Balikpapan, in East Kalimantan. During this trip, he conducted research on Proboscis Monkeys, Irrawaddy Dolphins and the mangrove forests. This trip enabled Wee Keat to be more aware of the various environmental protection efforts.



Teng Wee Keat (5th from right) and other HSBC/NYAA Youth Environmental Envoy Award winners received their award from Dr Vivian Balakrishnan, Minister for the Environment and Water Resources

Student Achievements

2013 Bayer Young Environmental Envoy Award



Standing next to Dr Goh Mong Song, Deputy Principal (Academic) for ITE College West, Gabriel Toh, winner of the local Bayer Young Environmental Envoy Programme, beams with pride in the company of his Mentors, Ms Magdalene Gwee (his right) and Mr Muhammad Taufiq Bin Mohamed Dali (extreme left).

The annual Bayer Young Environmental Envoy Award is given to outstanding young individuals who have successfully launched creative and innovative eco-friendly projects. Of these, the cream of the crop are selected to spend a week in Germany, where they will meet Bayer scientists and experts from the United Nations Environment Programme. This year, **Gabriel Toh Ghim Siang** from ITE College West was among one of the four young Singaporeans travelling to Cologne, Germany, to participate in the Bayer Young Environmental Envoy Education programme in November.

His project, a board game titled Go Green Game, educates players on the various environmental issues and green initiatives in a fun and enjoyable way. A hit among the Camp participants, the game was inspired by Gabriel's personal experiences. "I was taught do stuff like switch off the lights before leaving the room when I was young. It has since become a habit for me," he shared. "So I thought, if you learn about eco-friendly tips when young, they can become habits for life!"
(extracted from infinITE Issue 120)

Student Achievements

HDB Cool Ideas Competition 2014

Muhammed Nor Hisyam Bin Salimnor and Rajkumar S/O Lango, *Nitec* in Mechanical Technology students from ITE College East, bagged the top prize at the annual HDB (Housing Development Board) Cool Idea Competition – Student Design Competition. Their award-winning invention, a set of water saving devices that can control the amount of water flow from a tap, triumphed against many aspiring ideas submitted by peers from other tertiary institutions.

“It may be a simple device but it addresses a concern close to Singaporean hearts - saving precious water. After all, every drop counts,” said Rajkumar. “Our device can help you prevent water wastage and save up to one litre of water per minute. This will also translate to huge monetary savings in your monthly utility bills” added Muhammad.

The winning prototype was displayed at the ‘Better HDB Living’ exhibition, held at Toa Payoh HDB Hub, following the competition. (Article from infinITE newsletter Issue 123)



Winners of the HDB Cool idea Competition pose with Mr Eden Liew, Principal of ITE College East (3rd from left); Mr Neo Aik Guat, Course Manager of Mechanical Engineering (extreme right); and their supervisors Mr Tan Keng Huat (extreme left) and Mr Ng Heok Joe (2nd from left)

Student Achievements

National Climate Change Competition 2013 Short Film Challenge

Organised by the National Climate Change Secretariat (NCCS), and supported by the Ministry of Education (MOE), the National Youth Achievement Award Council (NYAA), and Ngee Ann Polytechnic (NP), the annual competition aims to provide a platform for budding film makers and animators concerned with climate change to share their thoughts with a wider audience on how everyone can be change agents tackling the global challenge.

A team of students from *Higher Nitec* in Information Technology from ITE College East, clinched the top prize in the tertiary (Uni/Poly/ITE) category for their video entry, entitled, 'Growing Good Habits'.

'Growing Good Habits' depicts the story that everyone can do their part towards conserving and preserving our environment - even from our very own home. An interview with the team, as well as their video entry, was also featured 'live' on MediaCorp's TV programme 'Good Morning Singapore' on Channel 8.



Team 'Eco Rembrandts': Nicholas Khong, Clement Chin, Andre Ng and Sherman Sng and their first prize trophy at National Climate Change Competition 2013.



Clement Chin discusses his views on climate change, as well as his team's winning video entry on MediaCorp's TV program 'Good Morning Singapore' on Channel 8.

Student Achievements

Green Wave Environmental Care Project Competition

Organised by Sembawang Shipyard, this environmental competition aims to inculcate in students a sense of personal and group responsibility for their own environment and in the process, develop creative and innovative ideas in the area of environment care and protection.

This competition has been a very good platform for ITE students to be engaged in innovation project for environmental care. Over the years, there has been significantly increased interest and involvement in this competition among ITE students.

Two teams from ITE College West clinched both the 1st and 2nd prizes in the 2014 Green Wave Environmental Care Project Competition under the JC/ITE category and in 2013, both ITE College West and ITE College Central teams clinched the 2nd and 3rd prizes respectively, in the absence of a 1st prize winner. There were many ITE student teams who clinched the other prizes. More details of all the ITE winners are published on the Green Wave official website.



2014 Green Wave Competition 1st Prize awarded to the project “Reptile Egg Incubator” from ITE College West. (PHOTO CREDIT: Green Wave Result Photo Gallery)



2013 Green Wave Competition 2nd Prize was awarded to the project “Butterfly Conservation Unit” from ITE College West. (PHOTO CREDIT: Green Wave Result Photo Gallery)

Student Achievements

Green Wave Environmental Care Project Competition

Winners of the 2014 competition, as extracted from the Green Wave official website, are:

JC/ITE Category 2014 ITE winners			
Prizes	ITE College	Project	Students
1 st Prize	West	Reptile Egg Incubator	Ng Jun Hui, Tan Kah Wee, Aaron Teo Jun Kim
2 nd Prize	West	Vegetable Washing System	Aaron Lim Zhe Yee, David Chong Teik Wai, Jeremy Ho See Ying
Merit Award	Central	Fusing Plastic	Dorcas Liau Mei Jun, Khairui Anwar Bin Mohd Zaperi, Nazif Zafi Ali Hussein, Jacqueline See, Muhd Khairul Irzwan Bin Rosli, Muhammad Isnin Bin Abdullah
Merit Award	West	Eco Vehicle Alternator	Sherwin Beh Swee Yang, Azlyiana bte Mad Azmi, Nurainah Binte Mohd Hairull, Husnul Khobeer bin Hasnullah, Ang Peng Siang, Norlyne Joshua M. Gagariu JR
Merit Award	West	Low cost, light weight, portable, Powered N95 Respirator	Teo Jen Kiat, Tee Zee Aik
Merit Award	West	Wormery System	Nur Hadi B Junaidi, NasrulNizam Bin Ahmad, Mohamad Khairul Anwar Bin Mohamad SA'AD, Goh Kwan Wen
Commendation Award	West	Food Waste Fluid Separator	Ng Shi Hui, Kee Lek Han, Calvin Goh Aik Sze, Koh Hong Wei

Student Achievements

Green Wave Environmental Care Project Competition

JC/ITE Category 2014 ITE winners			
Prizes	ITE College	Project	Students
Encouragement Award	West	Showering Reminder	Gay Bing Shuen, Dawami Fatimah Raiza Ngallih
Encouragement Award	West	Harvest Today's Rainwater for Tomorrow	Tan Jin Hui, Wong Yong Zhi, Ee Zhi Hao
Encouragement Award	East	Safety Glasses / Shields from Recycled Soft Drinks PET Bottles	Mohamad Zulkifli B Rahmat, Sim Kean Chuan, Muhammad Fairuz Bin Mohamed Zainal
Encouragement Award	Central	Highway Wind Mill	Wee Jun Wei, Muhammad Nazri B Allaudin, Liu Ji Wei

Student Achievements

Green Wave Environmental Care Project Competition

Winners of the 2013 competition, as extracted from the Green Wave official website, are:

JC/ITE Category 2013 ITE winners			
Prizes	ITE College	Project	Students
2 nd Prize	West	Butterfly Conservation Unit	Muhammad Sabir Bin Ibrahim, Mah Ernie, Tan Kah Wee, Ng Jun Hui
3 rd Prize	Central	The Debris Trap Cleaner	Muhammad Irfan B Ahmad Rusni, Juan Paolo Magnaye Tuazon
3 rd Prize	West	Innovative Power Extension Strip	S Sri Kalki, Yeo Yi Da, Chua Ding Zhang
Special Merit Award	West	Using Wick System/Capillary Actions of Soil and Recycled Containers to Grow Plants	Matthew Chua Zhi Zhou, Tan Wei Liang, Gary Teo Boon Heng, Lai Chee Hao, Ong Ching Sein
Commendation Award	East	Linge Propre de Savon, Producing Laundry Detergent from Used Bar Soap In Hotel	Anicia Tan Him Teng, Priscilla Ng Shu Min, Ng Miao Ling
Commendation Award	West	Smart Garden for Smart Generation	Bryan Lim Yi Xiang , Benedict Patrick Clyde
Commendation Award	Central	Battery Rejuvenating Charger	Galvin Raeben George, Nur Tiara Isalina Bte Hassan, Yee Wei Hao, Phua Bing Hao

Student Achievements

Green Wave Environmental Care Project Competition

JC/ITE Category 2013 ITE winners			
Prizes	ITE College	Project	Students
Encouragement Award	West	Diverting Rain Water Into Storage Tanks	Shawn Lee Shao Wen , Desmond Koh Fu Zhen, Alex Sam Wei Kit , Teo Jen Kiat, Ariel Wong MeiYu
Encouragement Award	Central	Aqua Leaves Abstractor	Marcus Peh Tian Soon , Muhammad Farid Bin Abdul Malik, Muhammad Syahmi Bin Razali
Encouragement Award	Central	D.I.Y Solar Panel	Kumaran S/O Rajadharen, Muhammad Ramdhan Bin Safarudin, Fathin Musyirah Bte Abdul Razak, Mohamad Nurhadie Syafiq Bin Mohamad Sani, Diyanah Natasha Bte Harris, Muhammad Ruzaini Bin Borhan, Muhammad Afham Bin Muhammad Khalid
Encouragement Award	East	Wonder Lamp	Lai Zhi Heng, Rajkumar S/O Lango, Noor Azlin Bte Junaidi

Awards & Recognitions

ITE was conferred the 2014 President's Award for the Environment!

On 2 Sep 2014, Mr Bruce Poh, Director & CEO of ITE received this award from President Tony Tan, at an award ceremony hosted at the Istana. The President's Award for the Environment is presented in recognition of our sustained and tireless commitment to the environmental cause and our active outreach to the community in spreading environmental messages.

The President's Award for the Environment, administered by the Ministry of the Environment and Water Resources, is the highest environmental accolade in Singapore. It recognises and honours the sustained environment- and water-related contributions by environmental champions from the People, Public and Private (3P) sectors. Kudos to staff and students in ITE who have put in lots of time and effort to care for the environment.

The award was a special art piece designed by Iskandar Jalil, a winner of Singapore's Cultural Medallion. It is nicely housed in a pedestal that contains a citation on ITE's involvement leading to this environmental award. The grand President's Award pedestal now sits at the atrium of the ITE Headquarters.



A group photo of the proud ITE team taken with the citation pedestal housing the President's Award

Awards & Recognitions

President's Award for the Environment 2014

Read the full President's Award for the Environment citation on ITE

The Institute of Technical Education (ITE) is widely-recognised for its dedication to environmental education. Together, the ITE's Headquarters and three Colleges have in place an Environmental Sustainability Initiatives Framework which promotes awareness of environmental issues among staff and students by encouraging them to be more conscious of the environmental impact of their actions in everyday life.

The ITE's passion for the environment resonates in the architecture of its Headquarters and Colleges which incorporates best practices in environmental design and construction, and adopts green building technologies. Extensive green walls, rooftop gardens, photovoltaic panels to generate electrical power and rainwater harvesting are but a few of the many green features that can be found at its Colleges. The ITE Headquarters & College Central complex, which was officially opened in 2013, was conferred the BCA Green Mark Platinum Award. ITE College West and ITE College East were also awarded the BCA Green Mark Platinum Award and Gold Award respectively.

Environmental education has been infused in ITE students' formal and informal curricula. All ITE students are introduced to environmental sustainability initiatives during orientation. These ideas are reinforced through projects and overseas study trips to build up environmental awareness during their years in ITE. Environment-related topics, such as recycling, waste handling and disposal, course-relevant environmental regulations, and course-specific electives like energy audit and water efficiency management are included in about 70 per cent of the ITE's courses. As a result, ITE students graduate with a keen sense of awareness of their roles and responsibilities in sustaining the environment, both on personal and professional bases.

The ITE has also formed many valued partnerships with the community through established eco-programmes which empower the students to educate the community on 'green' issues while serving them. ITE is also the first post-secondary education institution in Singapore to be a part of the Eco-Schools Programme, run by the World Wide Fund for Nature (WWF), which gives students opportunities to be trained as leaders of environment initiatives under a green-campus programme. For its efforts in raising environmental awareness, the ITE has been recognised with the Singapore Environmental Achievement Award in 2013. ITE students have also been awarded the HSBC/NYAA Youth Environmental Award and Bayer Young Environmental Envoy Award in recent years.

A leader of the class amongst Singapore's post-secondary institutions, the ITE truly deserves to be awarded the President's Award for the Environment 2014.

Awards & Recognitions

Built Environment Industry (BEI) Asia Green Building Awards 2014

The new ITE Headquarters & ITE College Central at Ang Mo Kio Drive won the BEI Asia Green Building Awards 2014 – Educational Institution.

The ITE Headquarters & ITE College Central campus was designed with many of the latest green building considerations and features. The buildings were designed with North South facing to facilitate better air flow for improved cooling. Environmental canopy with Daylight Reflectors, green walls, green roofs, solar panels, a rain water harvesting system, etc were incorporated for optimal energy efficiency. There are also 10 Eco stations in the campus that form an Eco trail for the purpose of environmental education. The buildings were also accredited with the BCA Green Mark Platinum Award in 2012. The BEI Asia Awards recognise, reward, and honour the achievements of leading enterprises across Singapore's Built Environment Industry.



Mr Bruce Poh, Director & CEO of ITE (extreme left) received the award from Dr Vivian Balakrishnan, Minister for the Environment and Water Resources, on 12 Sep 2014 at the BEI Asia Awards Ceremony held at The Ritz-Carlton hotel. He is accompanied by Dr Goh Mong Song, Deputy Principal (Academic), ITE College West & Chairman, ITE Environmental Sustainability Initiatives Committee

Awards & Recognitions

Singapore Environmental Achievement Award (SEAA) 2013

ITE is honored to receive the Lee Foundation Singapore Environmental Achievement Award (Public Sector) conferred by the Singapore Environment Council (SEC). The SEAA, launched in 1997, is a premier award that addresses overall environmental initiatives and awareness within an organisation. ITE was recognised due to the numerous industry tie-ups and robust student involvement in their environmental programmes.

On receiving this award, Mr Bruce Poh, Director & CEO says: *“Innovation is essential when it comes to developing creative ways to inspire our students. Our programmes have been successful in engaging the student population in environmental sustainability. The award serves as a testament of our staff's and students' efforts in greening the school. They have carried out projects ranging from maintaining a solar energy farm, harvesting rainwater, to developing a solar heating system. Such positive reinforcement will encourage them to continue to be engaged in sustainability issues and influence others too.”*



Mr Bruce Poh, Director & CEO of ITE (2nd from left) receiving the SEAA Award from Dr Vivian Balakrishnan, Minister for the Environment and Water Resources, alongside Ms Isabella Loh, Chairman of Singapore Environment Council (1st from left) and Mr George Huang, Chairman of the SEAA Steering Committee and President of the Singapore Manufacturing Federation (1st from right)

Awards & Recognitions

NEA EcoFriend Award

Congratulations to Mr Eden Liew, Principal, ITE College East, and Dr Goh Mong Song, Deputy Principal, ITE College West & Chairman for ITE Environmental Sustainability Initiatives (ESI) Committee, for winning the NEA EcoFriend Awards.

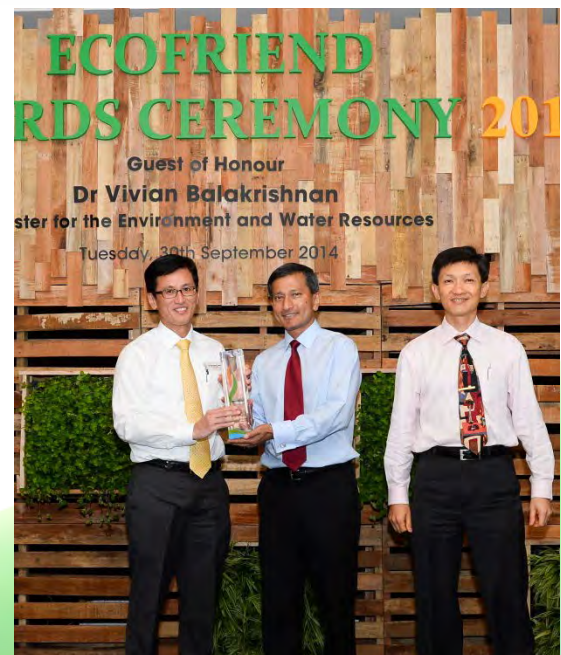
Mr Liew received the 2013 EcoFriend Award for championing numerous environmental initiatives in ITE College East, such as the Tray Return Programme and kNOw Cleaners Day, and other events that reach out to regional schools and the community on environmental issues.

As Chairman of the ITE ESI Committee, Dr Goh was the key driver of the ITE Innovate (2010 – 2014) programme on environmental sustainability initiatives. The establishment of the ITE Environmental Sustainability Initiatives Committee in 2010 saw many vibrant environmental activities by ITE students and greater engagement of the community, with ITE, in the environmental cause. Dr Goh Mong Song received the 2014 EcoFriend Award.

The NEA EcoFriend Award was developed and launched in 2007, to recognise and honour individuals who have made significant contributions to Singapore's efforts in achieving environmental sustainability.



Mr Eden Liew received the EcoFriend 2013 Award from Ms Grace Fu, Second Minister for the Environment & Water Resources



Dr Goh Mong Song received the EcoFriend 2014 Award from Dr Vivian Balakrishnan, Minister for the Environment and Water Resources

Awards & Recognitions

District Green Schools Award

ITE College East (CE) was presented the 2014 Green Schools @ South East Excellence Award presented by South East Community Development Council (SECDC) to the schools in the South East district. Since 2010, CE has sustained itself as a strong advocate of environmental issues. The College organises environmental activities to raise awareness among students and also developed mobile applications on greening tips, energy efficiency and calculating carbon footprint to engage other tech-savvy students on environmental conservation issues.



Mr Eden Liew, Principal, ITE College East, received the award from Dr Maliki Osman, Mayor, South East CDC, at the South East Clean & Green Singapore Carnival on 16 Nov 2014

On 19 March 2014, ITE College West (CW) received the Green Schools @ South West Gold Award 2013 at the South West Community Development Council (SWCDC) Awards Ceremony 2013 and Appointment Ceremony 2014.

CW has been in close collaboration with SWCDC and has been a strong advocate of environmental issues in the South West district. The award was presented for its effort in organising environmental activities and creating environmental awareness in the South West community.



Dr Yek Tiew Ming, Principal, ITE College West, received the Green School Award from Mr Arthur Fong, Chairman of South West CDC

Awards & Recognitions

School Green Award 2014

The School Green Award (SGA) is a holistic environmental audit programme administered by the Singapore Environment Council (SEC). ITE College East (CE) is proud to be the first post secondary institution to receive the SGA Lotus Award (Institute of Higher Learning Category). CE also receive two other awards: the 3R Awards (Gold) and the Most Holistic 3R Award, recognising the comprehensive 3R practices in the College.



O.N.E. Award 2014

On 23 November 2014, ITE College Central received the Central Singapore O.N.E. (Outreach, Nurture, Enable) Award – Gold Award (School Category). This award, conferred by the Central Singapore Community Development Council was presented to ITE College Central for the continued efforts in involving students and staff in environmental conservation, and for facilitating community outreach activities in environmental and resources conservation.



Daniel Khor (extreme right), Environmental Club representative, receiving the Lotus Award from Ms Grace Fu, Second Minister for the Environment and Water Resources (PHOTO CREDIT: SINGAPORE ENVIRONMENT COUNCIL)



Mr Tan Kay Chuan, Director of School of Electronics & Info-Comm Technology at ITE College Central, received the award from Mr Chan Chun Sing, Minister for Social and Family Development & Second Minister for Defense, at the Central Clean and Green Singapore Carnival

Awards & Recognitions

Community in Bloom Awards 2014

Two new gardens in ITE won the National Parks Board Community in Bloom Awards in 2014.

The Musical Garden at ITE College East bagged a Platinum Award for Educational Institutions and an Excellence Award for the Best New Community Garden in the Educational Institutions category. This garden, situated at Business Block Level 5, was designed and set up by students from *Nitec* in Facility Technology (Landscaping Services) and it will be maintained by students from this course as their course project.

This garden was designed on a musical theme. It was built by the students and is maintained by them too. The colourful garden boasts of a huge guitar laid into the groundwork and a piano fountain too. There are plans to add in more musical features to the garden as it develops.



Snapshots of the Musical Garden at ITE College East

Awards & Recognitions

Community in Bloom Awards 2014

The Community Garden at ITE College Central also bagged the Community in Bloom Gold Award. This garden, situated next to the sports field, plants a number of herbs and vegetables. The garden is set up and maintained by students from the Greenery Club. It is open to the community too; residents in the surrounding housing estate helps to maintain the garden regularly.



Greenery Club staff and students posed at their Community Garden in ITE College Central

Awards & Recognitions

Gardeners' Cup 2014

The Gardeners' Cup, organised by the National Parks Board, is a friendly and collaborative gardening challenge held in conjunction with the Singapore Garden Festival (SGF). The three ITE Colleges (each representing the district where the Colleges are located) designed and setup the theme gardens together with the respective community partners. The Gardeners' Cup was held on 15 Aug 2014, with an overarching theme "Fiesta"; the garden displays creatively evoked one of the five senses – Hear, Sight, Taste, Touch and Smell.

ITE College	District	Garden Theme	Award
Central	Central	Touch The Heart (sense of touch)	Best Themed Garden
East	South East	Scent-alising (sense of smell)	Educational Award
West	South West	Carnival By the Bay (sense of sight)	Innovative Award



Left Picture: Gardeners' Cup Educational Award – Scent-alising; Right Picture: Gardeners' Cup Best Theme Award - Touch Our Heart (PHOTO CREDIT: Singapore Garden Festival Facebook Page)



The Central District Team writing 'Touch The Heart' Messages on Pebbles. Their garden was filled with these touching pebbles



The South West District Team won the Innovative Award



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- ITE Eco Portal: <http://eco.ite.edu.sg>



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