

students say...

Takuya Aso (Kumamoto University) Community and Technological (CommTECH) Camp 2012 Participant

"It was a very good program for me. I was able to go to many places and learn many things, and buy many products of Indonesia and communicate with many foreign people. If I can I'd like to attend this even in the future. Staff and crew were very kind. I'm impressed."



"It's my pleasure to be here for 10 days. I've got experiences and knowledge from this program. With suitable programs, I can learn more about Indonesia. From that, I can compare with my country. participants can share and discuss to solve same current problems not only in Indonesia but also in other countries."

Nguyen Thi Pho (Ho Chi Minh City University of Technology) Community and Technological (CommTECH) Camp 2012 Participant

Anli Bunga Rizkiah (Industrial Engineering, ITS) Indonesian English Language Study Program (IELSP) 2012 Participant

"Some people say it's better to be a big fish in a small pool rather than a small fish in a sea, but they don't realize that they were biased with a fake glory. Jump into the unbanned sea of the international world through ITS International Office."



"Now is the right time for students, staff and lecturers to be equally active in actualizing the world-class university in ITS. Come on, encourage internationalization, while still loving the characteristics of Indonesian culture!"

Gilang Maulana Abdi (Statistics, ITS) 1st Winner ITS Goes Global Essay Competition, Student Category

Community and Technological (CommTECH) Camp 2012

ITS held its first-ever students and staff international program. Community and Technological (CommTECH) Camp 2012 which ran from 26 November - 4 December. A total of 33 students and staffs from 17 countries participated in the program, learning deeper about technological issues in communities across Surabaya and East Java.

Participants also experienced a variety of local activities, including batik-making, fruit-picking, traditional dancing, exploring mangrove forests, learning traditional *angklung* music, finished off by mountain-climbing and river tubing in the scenic Bromo and Nongkojajar area. At the end of the programs, the students, divided into groups, presented their findings and ideas on technological developments in Indonesia, for specific issues they have learned throughout the program.

IO highlights!



"Life is a succession of moments, to live each one is to succeed." Corita Kent

ITS ASEAN Language Workshop

30 March, 6 April, 14 April 2013

With the ASEAN Economic Community (AEC) and ASEAN Community Free Trade Agreement coming into implementation, knowledge on ASEAN neighbours, economic and cultural aspects are a must!

In this workshop, several ASEAN speakers will engage the audience on an interactive lesson in understanding Indonesia's neighbouring countries' language and culture.

Limited seats - ITS Students only, contact: +62 856 4846 1085 (Dewie)

ITS Student & Staff Excursion

11- 14 September 2013

30 selected students and 5 best english-speaking staffs of ITS will have the chance to explore Thailand together!

They will be visiting three major universities and also places of importance around Bangkok and other places in Thailand.

contact: +62 856 960 200 34 (Ricca)

Community and Technological (CommTECH) Camp 2013

26 August - 3 September 2013  
 Registration period: 1 March - 31 July 2013

Following the success of CommTECH Camp 2012, ITS is once again holding its highlight international student and staff camp. Explore the many cultural and technological surprises around Surabaya and the East Java region!

Open to international students and staff.

contact: international@its.ac.id (Wahyu/ Lisana)

for more information regarding everything international in ITS, contact:

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ITS International Office ITS\_IO

upcoming events

hello from ITS!

Institut Teknologi Sepuluh Nopember (ITS) is a university of science and technology with more than 17,000 students and about 1,000 faculty members and 1,000 supporting staffs (laborants, technicians, librarians, and administratives), which is now ready towards being a world-class university. By sustainably improving the quality of education and services as well as supporting facilities, ITS struggles to be an important part of the global, incorporated and integrated world.

The extended availability of communication means wide access to almost unlimited information between places all over the globe. It is an appropriate time for ITS to set up a window for publishing reports on its achievements and potential resources that play a key role towards capacity building in education, research and community development.

Although it is realized that the fields of science and technology are universal, ITS consistently sticks to the local-based know-how, knowledge and wisdom in the development of science and technology, in order to obtain its own uniqueness. This media you are reading is an attempt to feature all the things attempted by ITS people globally.

Lastly, I congratulate with high appreciation ITS International Office crews who have published the first edition of this communication media.

Warm greetings from ITS Campus, Sukolilo, Surabaya, which you should immediately visit to.



Darminto Vice Rector on Research, Innovation and Partnership

In 2011, the goal was set.

Institut Teknologi Sepuluh Nopember (ITS), Surabaya, Indonesia, were to become a world-class university by 2017. Ever since then, all over the campus has been brimming with one word: **internationalization**. More programs were initiated to enable students and lecturers to experience life overseas, and for overseas students to experience ITS.

The year 2012 has especially been productive for the institution. ITS launched its first batch of fast-track program students to France and Thailand. Later in the year, ITS also held the first international camp, named CommTECH. Around the same time, ITS was also accepted to be part of the ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net). The participation opened up a wider range of international programs for the academic community in ITS.

It was also in the same year that ITS achieved a number of international awards. The Sapu Angin, ITS Robotics team, and ITS Maritime Challenge, are just some examples.

This first edition of IOpener is a track record of our 2012 journey towards internationalization. We hope you enjoy them, as much as we have enjoyed the journey ourselves. And most important of all, we hope to see you soon in ITS!

ITS International Office (IO) team

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editorial



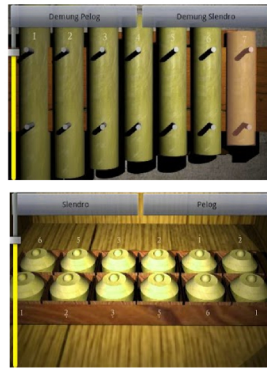
## Building Better Backs

Dr Agus Windharto DEA from the Industrial Product Design department has been working hard to design better backs for humans... through ergonomic train seats. "All this time, we (Indonesians) have been importing seats from Taiwan. How can we sit comfortably, when our backs are different to people in Taiwan?" he explained. To reach his goal, Agus and his team has had to observe every single detail of train passengers' activities. Starting from the way they sit, read, and sleep in their seats. In 2007, his ergonomical design received a patent licence and his designs are already in use by PT INKA (Indonesian Train Industry Corporation). Bravo!



## Gamelan Toetoel: Technology + Tradition

When tradition has lost its touch in a growing generation, why not combine it with the latest development in technology? Traditionally, gamelan, which is a sort of Javanese orchestra, is quite heavy and rather impractical. The traditional ensemble is comprised of a large number of different instruments made out of wood and metal. Practicing gamelan can only be done on-the-spot. Electrical Engineering students Afrizal Yodi Purnama, M Reza Hadafi Fathullah, Farandi Kusumo, Aang Pamuji Dyaksa and Respati Loy Amanda have overcome that barrier. Gamelan can now easily be played on merely... an Android device. "It took us three months to finish," said Aang. They have spent their time recording and calibrating sounds from a gamelan ensemble, and then combining it with graphical displays to create their gamelan-playing game called Gamelan Toetoel (Gatoel). Gatoel has won first prize in the national students' scientific competition, Pimnas. It is also available on Google Play for free - try it out!

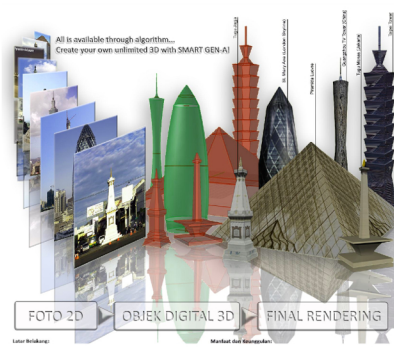


## Smart GEN-A: The Mathematical Future of 3D Imaging

Converting photos into three-dimensional images may seem impossible and far-fetched for some. But a team of students from Mathematics and Architecture have teamed up well to prove their idea.

Smart Generative-Algorithm (Smart GEN-A) was chosen as the name for the Rhinoceros-based algorithm. Through experiments with basic forms, they have been able to transform photos of cups, water gallons, to towers and even the Borobudur temple into 3D digital forms.

For their work, M Syifa'ul Mufid, Yanu Andy Fredian, Jayadi and Nurul Qomariyah were awarded 2nd Prize in the 2012 national students' scientific competition (Pimnas).



## researches galore

Sources: ITS Online & ITS Point magazine 2012 - 2013

## Our New Electric Car!

ITS successfully build its trademark electric car, called the EC ITS. Every component of the car, except for the motor and batteries, were built independently by a selected team coordinated by the Mechanical Engineering department of ITS.

The 4-seater sporty city car runs on an electric motor with a capacity of 20 Kilowatts and 5 kWh Lithium Polymer batteries. Its highest speed on full batteries reaches up to 50 km/h.

However, "We are still developing EC ITS to be able to run at 60 km/h," said Dr M Nur Yulianto, coordinator of the research team. The research is in line with the goal of the Indonesian government to produce a nation-wide electric car.



## Sapu Angin team 7: still the best

Sapu Angin, the trademark fuel-efficient car of ITS has once again proven itself as one of the best innovations in its class. The sleek white mini was dubbed as 1st winner in the Urban Concept Biodiesel category of Shell Eco-Marathon (SEM) in Penang, Malaysia.

The 7th car of the Sapu Angin generation runs on solar biodiesel fuel. It can reach up to 300km on just one liter of fuel.



Sapu Angin has continuously participated in SEM competitions, and has never returned home without any prize. However, 2012 marks their biggest achievement yet. The team consists of students from varying fields of study, supervised by a dedicated team of lecturers.



## RI-NHO, rockin' in ABU ROBOCON 2012

ITS Robotic Team has long awaited for their international debut. After winning the national robotics championship, KRI, they finally got their chance.

The team competed in Asia Pacific Broadcasting Union Robot Contest (ABU Robocon) 2012, they showed off their skills with their champion robot, RI-NHO.

However, after a long battle with the team from Vietnam, they haven't yet been able to reach Peng On Dai Gat, or the highest award. They were awarded the Toyota Award for their great efforts.

## Never-ending spirit: ITS Maritime Challenge Team

Long live Indonesian maritime! Credits especially to those of the younger generations who are trying to recapture the the maritime spirit in Indonesia, the ITS Maritime Challenge team.



In their big year of 2012, the team was awarded the Spirit of Atlantic Challenge Award in the prestigious International Contest of Seamanship and Boatbuilding - Atlantic Challenge 2012. They fought on their new ship, the Rojo Segoro which they have built in the past few years. The team is a one-of-a-kind in Indonesia, and has been offered cooperation with several countries in boatbuilding development.

## postgraduate corner

The Postgraduate Program (PPS) of ITS has much to do with the institutions' targets of internationalization. Among its top priority programs is in the acceptance of a higher number of international students in ITS and how to better facilitate them.

PPS has done a lot of hard work in establishing international relations since 2011. This year, they are targeting more scholarship programs with countries in East Asia and Africa. "This year, there are currently 44 international students in ITS," said Prof. Dr. Ir. Adi Soeprijanto, MT, director of PPS.

The number of international students in ITS are also increasing through a number of joint scholarships between countries. These include the developing countries' group (KNB) scholarship, and a doctoral scholarship in conjunction with the nation's Education and Academic Resources Directorate (Distendik), which is still underway.

### GRADUATES ABROAD

Ni Luh Putu Satyaning Pradnya Paramita, better known as Ning, is a graduate of ITS Statistics department. She is currently undertaking her masters in Université d'Aix-Marseille I, France.

Ning was part of the first batch Fast-track program of 2012. A self-confessed francophile and a lover of arts, she was highly excited upon the prospect of studying and living in France. The abundance of extra work that she had to do during her fast-track program did not reduce her spirits. "Becoming a fast-track student means a lot of consistent hard work, perseverance, and prayer," said the petite Balinese. Good luck with your studies, Ning!



Sources: ITS Online & ITS Point magazine 2012 - 2013

## ITS students and staff, going global

ITS Goes Global Essay Competition sought to find out fresh, new, creative ideas on internationalization from ITS students and staffs. Around 164 essays were submitted. But in the end, only 6 papers were nominated the best.

In the student category, winners are: Gilang Maulana Abdi (Statistics), Mohammad Sholehuddin (Electrical Engineering) and Ardian Yuda (Marine Engineering). In the staff category, Christin Risbandini along with Nanok Adi Saputra and Rizki Riana were declared winners. All winners were given the prize of three days' trip around Singapore. They visited several academic institutions, discussed and compared ideas on internationalization. They will be presenting their findings and new ideas to other students of ITS this March.



## they who make us proud