

## Progress of 2013 Winners of ATS Educational Awards for Excellence.

### Ms Supattra Visessri (Imperial College, London): Winner of Environment Award



It was an honour to be selected as an award winner of the Anglo-Thai Society Educational Awards in 2013. Receiving this award was an encouragement to make other contributions to my country. The ATS Award is really meaningful to me and it drives me to produce better research in the future.

Last year, I spent most of my time writing my PhD thesis which I have already submitted. I passed my PhD viva examination on 27th June 2014. I am now working on the corrections of the thesis which is supposed to be done in a month's time. I plan to go back to Thailand in September 2014 and start working as a lecturer at Chulalongkorn University in October 2014.

My research focuses on modelling and predicting river flows in Thai river basins where no gauging stations are installed so the river flow data cannot be directly obtained for water management applications. The methodology applied in my research is proved to be beneficial to flood and drought management and

also water resources planning in Thailand as well as other countries with similar climate condition. An improved accuracy of the river flow prediction is beneficial to flood and drought management and also sustainable water resources planning.

### Mr Watcharabon Buddharaksa (University of York), Winner of Humanities & Social Science Award

Winning the Anglo-Thai Society Educational Award for Excellence in Humanities and Social Sciences in 2013 made me proud and confident. This prestigious award is highly competitive among top PhD students in the UK, therefore, achieving it boosted my academic confidence. The award itself has paved the bright way for my future academic journey.

Over the past year, I finalised my PhD thesis in February 2014 then I took my Viva examination in May and submitted my final thesis on 21 May 2014. I returned to Thailand and started my job as a lecturer in the Department of Political Science, Faculty of Social Sciences, Naresuan University, Thailand since 27 May 2014. I was also appointed as an Assistant Dean of the Faculty of Social Sciences and the editor of Journal of Social Sciences, Naresuan University. My responsibility in teaching for the first semester covers both undergraduate and postgraduate studies. In addition, my first academic monograph, A Survey of Antonio Gramsci Political Theories (in Thai), will be published soon in October 2014.



I am now at the beginning a new research project entitled "Open Marxism and the Critique of Political Economy: On Labour, Capital, and the State" which is a theoretical research that will provide a comprehensive understanding and explanations on the problems of political, economic, and social matters in Thailand in depth philosophical sense. This research could benefit those in the sphere of policy making and wide academic community in Thailand.

## Progress of 2013 Winners of ATS Educational Awards for Excellence.

### Mr Teerapong Yata: (Imperial College, London) Winner of Medical Science Award

Winning The Anglo-Thai Society award has inspired me to become a better scientist.



My research area is in the development of nanomedicine suitable for gene therapy which is the use of DNA as a therapeutic agent to treat diseases. However, gene therapy requires a DNA vector capable of protecting and delivering therapeutic gene to the disease site in the body. We have developed the bacteriophage-based vector as a gene delivery vector. Bacteriophage is a bacteria virus. It is safe because it has no natural tropism in humans.

We modified this virus to deliver a gene that stimulates cancer cells to commit suicide and leaves healthy cells untouched. It is like a smart missile that homes in on cancer cells. Recently, this vector has been submitted for patent application by Imperial Innovations.

I have returned to Thailand to work as a researcher at National Nanotechnology Centre in Thailand after I was awarded PhD from Imperial College. My PhD work greatly interests researchers in Thailand. We are establishing a collaboration between Imperial College, my affiliation, and Chulalongkorn University.

For example, we are planning to perform the cancer treatment in pet dogs using our technology. Moreover, we expect to use our technology to develop animal vaccine against infectious diseases for veterinary use.

### Ms Phanwadee Chureemart: University of York: Winner of Pure Science Award

It was a great honour for me to achieve this award. Over the past year, since completing my PhD, I have been appointed Assistant Professor in the Department of Physics at Mahasarakham University (MSU) in Thailand.

I have established a research group in magnetic materials and continue to collaborate with the University of York as Seagate Technology has endorsed the joint project between MSU, the University of York and Seagate (Thailand and Springtown, UK) to develop models of read heads for next generation storage.

It will benefit to Thailand, as we know that Seagate is one of the two manufacturers of hard drives for data storage and makes a major contribution to the economy of Thailand.

In addition, I also have won funding from Samsung on "Atomistic simulation of advanced materials for MRAM applications" under the Samsung Global Research Outreach (GRO) program. The project is a collaboration between the University of York, MSU and Samsung Electronics to investigate the properties of materials and spin transport for MRAM devices.

As a result of these fundings, I have 5 PhD students under my supervision and I will be expecting to contribute my knowledge to develop Thai students to continue research in magnetism and to support the Thai magnetic industry.



## Progress of 2013 Winners of ATS Educational Awards for Excellence.

### Ms Chanya Hetayothin: University of Arts, London. Winner of Arts Award



I was born in Thailand where in those days most people thought that smart students should choose a science subject. However, I myself always valued and appreciated the arts. My ATS award shows that attention has been given to research in this field.

I appreciated this and I am honoured to have received the award. I also hope that the ATS will continue to give the award for work in the arts.

Over the past year I have been exhibiting my film internationally and writing my thesis. Following the ATS award, my film - "NUNUI" - was the Winner of the Best Thai Animated Film at the 17th Thai Short Film and Video Festival; one of the Top-Five nominees at TBS.Digicon6 in Bangkok, Thailand in 2013; an Official Selection at the 17th Japan Media Arts Festival in Tokyo, in 2014; and an Official Selection for "Up & Coming Talents" programme at Tricky Woman International Animation Film Festival, Austria in 2014.

In 2014 the animation was also screened at IMAGINALE 14, the International Puppet Theatre Festival in Stuttgart, Germany, and The Flottmann-Hallen, the cultural centre for performing and visual arts in Herne, Germany. Here is the link to my animation: <https://vimeo.com/68848648>

The practical part of my research seems to have been successful. The textual part, however, still needs corrections and additions. Since I prefer to regard animation as an art form, I investigate this subject in less conventional contexts, such as cultural performance. I am aware of the various sources of Thai arts & culture. When I return to Thailand, I hope to continue adapting the Thai local arts into my animation.



My research serves as a guideline of how an animator analyses southern Thai shadow puppetry and uses that art form as a source for her animation. The contribution is twofold. First, the research demonstrates how to extract the creative source from Thai traditional arts and the process of making animation according to the analysis. Second, this research helps to cultivate the traditional art within the modern context. My research calls on animators and other visual artists to explore my proposed model of integrating the unique quality of the Thai puppetry into animation, and to develop it further.

## Progress of 2013 Winners of ATS Educational Awards for Excellence.

### Mr Chedtha Puncreobutr: Imperial College: Winner of Engineering & Technology Award



I would like to express my sincere gratitude to ATS for awarding me the Engineering and Technology ATS Education Award. Receiving the Anglo-Thai Society award is the greatest honour for me. The award, to me personally, is not to recognise for what I have done. Rather, I see it as the best driving force that motivating myself to continue to do good research and to contribute knowledge to both academic and industrial societies.

My research focuses on using a specific x-ray imaging technique to observe dynamic changes inside solidifying metal, when it goes from liquid to solid. This mimics what we would observe during a commercial casting process. The x-ray technique I used is similar to a hospital CAT scan. It takes a series of 2-D images and uses advanced computer programs to combine them into 3D images. By observing the evolution of these 3D images with time, I characterised the nucleation and growth mechanisms of an undesirable phase inside my alloy, and its influence on defect formation. These new insights will help to design better casting components with less defects for automotive applications. As automotive manufacturing is one of the major industries in Thailand, I do hope that this knowledge can be utilised to improve production yield, maximise product quality and further strengthen our automotive industry.

After my graduation in December 2013, I returned to Thailand to start my new role as a university professor at the Department of Metallurgical Engineering, Faculty of Engineering, Chulalongkorn University, in central Bangkok. This has been the best place for me to carry on the research, to exchange interesting ideas with experienced faculty members and to share my knowledge with many energetic students. Fortunately, I am also able to continue collaborating with many great colleagues in the UK.

I revisited UK in June for a week to present my work at a conference and to set up research collaboration. I am hoping that this collaboration will not only contribute great science to the academic circles, but will also establish a solid fundamental knowledge of 3D imaging that could be utilised to address key manufacturing questions in Thailand's automotive industry. I am very excited to working on this great challenge.