



# NGS Scholars' Alliance Editorial

ISSUE 8

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## ABOUT US

**NGS Scholars' Alliance** is an official student group for **NUS Graduate School for Integrative Sciences and Engineering**.

Established in 2005 to serve as a platform for exchange amongst all **NGS** scholars. This student body will also facilitate the personal development and leadership training of our scholars. **NGSAA** is also the key to developing, creating and fostering **NGS** community and identity.

Webpage:

<http://ngsaa.weebly.com>

Email:

[ngs.alliance@gmail.com](mailto:ngs.alliance@gmail.com)

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## Issue Highlights

In this issue, we welcome the new batch of NGS scholars joining the NGS family. A fun bonding session was organized and what better way to break the ice and get to know each other than through food.

Also in this issue, we showcase the achievements of a fellow NGS scholar, Phang Swee King, who won honours representing NUS in an international competition on UAVs (Unmanned Aerial Vehicles)

Last, we take a sneak peek at the 6<sup>th</sup> NGS L.O.R symposium's panels of speakers. With the inclusion of an industrial talk, this symposium is not to be missed not only for graduating scholars, but also for current scholars who are interested in joining industry in the future.

## Welcoming the August 2013 intake into the NGS family!

On July 30, we welcome the new August 2013 intake of NGS scholars into the NGS family. With a series of programs planned out, the new scholars not only gained some tips on coping with stress, they were also paired with a senior buddy who can help to answer or help with any questions or difficulties that they may face.

each other, but also get to know the seniors.

sess a particular "characteristic" such as shoe size 9 etc. in a bingo format. After the "intense" workout, it definitely is time for lunch where they were treated to a sumptuous buffet.



After the formal stuff, we were excited to begin a series of games to help not only the new scholars know

A quiz on the topics discussed earlier such as the payment date of stipends and the amount of annual conference allowance were dished out and prizes were awarded to those who were paying attention earlier. "Character Bingo" was also played where new scholars have to go around asking other scholars if they pos-



## More photos on Aug 13' Induction Day



The fun did not stop at induction day. We also organized a BBQ session at Prince George's Park (PGP) to promote interaction between the new scholars and the NGS family. Members of the NGS scholars' alliance were responsible for the organization and it was a pleasant surprise to see some of them possessing expertise in setting up fire and BBQ-ing foodstuffs.



# Scholars' Highlight - The Sky is not the Limit



With the advancement in artificial intelligent robots in the recent decades, the unmanned aerial vehicle (UAV) has aroused great interests in the both the academic and industrial sectors. The seemingly unlimited potential of the UAV applications causes the blooming of new business ideas with UAV, such as aerial photo shooting of wedding ceremonies, and the recently developed Taco delivery using UAV.

Five current NGS scholars, Wang Fei, Cui Jinqiang, Phang Swee King, Zhao Shiyu, and Lai Shupeng from the NUS Unmanned Systems Group have recently participated in the 2<sup>nd</sup> AVIC Cup International UAV Innovation Grand Prix that was held in Beijing in September 2013. Joining hands with six other Ph.D. scholars from other departments in

NUS, and a Ph.D. scholar from Nanjing University of Science and Technology, they formed two teams to enter two different categories: the Rotor-wing Category, and the Creativity Category. They have brought home the overall 2<sup>nd</sup> prize in the Rotor-wing Category, and were awarded the New Innovation Star Award in the Creativity Category, with a total cash prize of CNY 90,000, out of more than 120 participating teams.

In the Rotor-wing Category, the team was required to design and construct a UAV to complete several tasks in autonomous fashion, without interference of a human pilot. The tasks included automatic take-off, searching of a ship which had four buckets on it, transferring the buckets to the other ship nearby, and navigating back to the take-off spot to land. Incorporated with sophisticated sensors such as inertial measurement unit, GPS receiver, HD camera, and laser scanner, the rotor-wing UAV built by the team appeared to be the only aircraft that completed the whole mission in the final round, in which there was an additional difficulty that the ships were moving in random direction.

The Creativity Category focuses more on the innovative idea on new types of aircrafts. The competition task was to develop an unconventional aircraft which had different working principles from those available in the market now. The team from NUS designed a foldable wing airplane which was able to transform between a helicopter and a fixed-wing aircraft. The workability of the aircraft was shown in the flight performance during the competition.

The NUS Unmanned Systems Group has been actively participating in various national and international competitions in the past few years. For more information about them, please visit <http://uav.ece.nus.edu.sg/>.





# NGS L.O.R III - A Sneak Peek!

Last, we take a sneak peek at the upcoming 6<sup>th</sup> Life.Opportunities.Research (L.O.R.) symposium 2014 organized specifically for NGS students. An exciting add-on different from symposium 2013 would have to be the industry talk by Panasonic. This not only serves to let graduating scholars have a chance at meeting potential employers, it also provides a deeper understanding on research in an industrial background for current scholars. So don't wait and register now.



The poster features a light blue background with a large, stylized DNA double helix structure in the center. The text is arranged in a clean, professional layout. At the top, the title 'NGS LOR III' is written in large, bold, orange letters, with 'Life Opportunities Research' in smaller blue letters below it. The background is decorated with binary code (0s and 1s) and a molecular model at the bottom.

**NGS LOR  
III**  
Life Opportunities Research

**Keynote Speaker:**  
Prof Nitish Thakor

**Other Panelists:**  
Prof Teoh Swee Hin  
A/Prof Ooi Eng Eong  
Dr Adrian Koh

**Industry Speaker:**  
Panasonic

**Don't Miss It!**

**Abstract Submission:**  
15th Nov 2013 to 15th Jan 2014

**Registration Open:**  
1st Dec 2013 to 30th Jan 2014

**Date:** 21 Feb 2014  
**Time:** 9am to 5pm  
**Venue:** NUS University  
Hall Auditorium

Feel free to write in to us at [A0068121@nus.edu.sg](mailto:A0068121@nus.edu.sg) and we'll share your comments and ideas on the next issue. Do submit your research to us with a short abstract and 2 figures and we'll share with the NGS community in the next issue.