

Nanyang Technological University

# FLYING HIGH

These two NTU scholars are not typically down-to-earth. Both of them have dreams that are way out of this world – one aspires to be in the spacecraft industry while aircraft is the other's passion.

| by shi tianyun |

Edwin Neo likes a challenge for sure. In order to make sure his university education is as intellectually stimulating as possible, Edwin enrolled in not just one but two programmes in Nanyang Technological University (NTU). The bright young man is part of the university's Renaissance Engineering Programme (REP) – this integrated, rigorous and fully residential programme has a broad curriculum that connects the diverse fields of engineering, business and liberal Arts together. REP students will receive a Bachelor of Engineering Science, with a specialisation in a specific engineering discipline, together with a Master of Science in Technology Management in a fast-tracked four and a half years.

"I hope to be involved in designing of spacecraft one day," states Edwin. He speaks about the possible spacecraft programmes he sees his future in, for instance Mars One, a

non-for-profit organisation that looks into the eventual colonisation of Mars.

"Although my interest is in aerospace engineering, what is great about the structure of REP is that we are exposed to the different arms of engineering before we specialise in one. This other engineering expertise will come in handy when I'm faced with a multidimensional problem," affirms Edwin.

## STRETCHING TO FULL POTENTIAL

The intense REP did not deter the promising youth from pursuing and gaining entry into the inaugural batch of the University Scholars Programme (USP). This programme seeks to provide an intellectually stimulating and enriching academic environment for the crème de la crème in NTU by offering multidisciplinary modules that range from ethics to astronomy. Besides forming a supplement to the student's

core subjects, their perspectives are broadened as their creative thinking and analytical ability are challenged.

The first-year student elaborates, "This combination of the REP and USP will help me in my all-rounded development. REP will train me in both engineering and management. While I decided to join the USP purely out of interest, I'm keen on USP modules based on philosophy and epistemology."

Both programmes also expose students to a different education system away from home – USP students are guaranteed an overseas exchange whilst REP undergraduates will spend a year in University of California, Berkeley in their third year and will do their Industrial Orientation programme in Silicon Valley.

Even with a packed academic schedule, Edwin manages to make time to indulge in his other love – music. The student participates in



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both Piano and String Ensemble at NTU. In fact, one highlight of his first semester at school was performing in this year's Piano Ensemble concert.

#### A HEAD START ON RESEARCH

While Edwin is just starting out on his NTU journey, we meet the personable Mohammad Zaidi Bin Ariffin who is in the last stretch of his undergraduate course. The fourth-year Aerospace Engineering student has been intensely trained in Maths and Physics, thanks to the CN Yang Scholars Programme (CNYSP). This programme was specially designed for students with a deep passion for science and engineering, just like Zaidi.

"Since I was young, airplanes have intrigued me. I spent hours just watching them and learning about how they work. I also happen to be an analytical and systematic person so engineering was a clear path for me. I put the discipline and my love for airplanes together and naturally ended up studying aerospace engineering," the affable Zaidi enthuses.

Three rigorous semesters provide CNYSP students with a strong and broad foundation in the basics of science and maths, that is an add-on to their core curriculum. Although Zaidi admits that subjects like quantum physics might not be relevant to his course of study, these in-depth modules not only help him balance out his thought process but also better appreciate

the nuances of science and maths.

Another direction of the CNYSP is the platform it creates for students to develop an interest in leading edge research by creating research opportunities for them from as early as their freshmen year. Zaidi himself was immersed in the research culture from day one - he worked with a professor as part of a project group in his first and second year at NTU. Their topic was focused on unmanned aerial vehicles and Zaidi shares how they used a quad-copter (helicopter propelled with four rotors) in their research that he dubs as part of his "mini final year project".

#### THE PASSION TO MAKE A DIFFERENCE

Fast forward to present day and Zaidi is currently hard at work at his final year project in which of course research plays a large part in. After spending a semester on exchange at Delft University of Technology in the Netherlands - a stint greatly encouraged by the CNYSP - he discovered a whole new world of wind energy and subsequently fell in love with green energy. Spurred by this new interest, he decided to work on a simulation of wind turbine to research on how the blades interact with the surrounding air and hence his thesis was born.

"I'm a successful 'product' of CNYSP!" declares Zaidi with a chuckle. "Research is something you need the passion for and thankfully, I enjoy it!" In fact, CNYSP graduates who meet the admission requirements are given an option to pursue accelerated post-graduate study with a top scholarship and overseas attachment - the exact path that Zaidi is excited to embark on after his fourth year.

Zaidi shares more, "At this point of time, I'm more attuned to research because I believe that research is a noble cause that affects people and the community." Indeed, these are inspiring words from the young man who is also part of the CN Yang Scholars club and is a volunteer youth representative with the Singapore Red Cross.

As both Edwin and Zaidi bid us farewell, we know that this is not the last time we will hear from them - we are sure these two outstanding students will make the future news with their engineering breakthroughs! ▴



**Mohammad Zaidi Bin Ariffin**  
CN Yang Scholars Programme

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