

COMPUTER SCIENCE

UNIVERSITY OF NOTTINGHAM MALAYSIA

In this issue:

- About the School
- Welcome Lunch
- CS Week
- Field Trips
- Awards
- Students' Representatives
- Alumni Highlights
- Teaching & Learning
- Research
- Academic Staff

October 2019 Edition

Editorial Team: Norman Shaqir Shariran,
Nurul Syahadah, Dr Marina Ng and Dr
Amr Ahmed

Published for the University of
Nottingham Malaysia



WELCOME TO THE SCHOOL OF COMPUTER SCIENCE

Thank you for your joining the Computer Science family!

Dear all,

A very warm welcome to the "School of Computer Science" newsletter.



In the school, we work as a small family and we care about our students. Our aim is to provide our students with insightful and enjoyable experience.

Students are supported throughout their academic journey. Moreover, we will also provide them with exciting opportunities and activities that will help them to build up their professional portfolios. That includes opportunities to participate and contribute to our state-of-art active research.

I wish you all the best and hope to help you build a better future

Dr Amr Ahmed
Head of School of Computer Science

Nottingham, a Global International University (UK, Malaysia, China)

We are pleased that our school is part of the global Nottingham Computer Science, co-existing across the university's three campuses. We have regular meetings and work together very closely to provide the global Nottingham experience. We deliver the exact same curriculum and provide careful support to help our students improve their knowledge and skills.

Heads of Schools, and key academics, will meet regularly (at least once a year), usually in the UK campus, to discuss the overall strategy and operations.

Our staff and students as of now:

- 11 lecturers
- About 300 students



WELCOMING THE STUDENTS

We are pleased to welcome all the students, new and returning, to the new academic year 2019-20.

We had a Welcome Lunch, to officially welcome in new and returning students. Dr Amr Ahmed, the Head of School of Computer Science and Miss Fatima Tayeb, school representative both gave a welcome speech to set a cheery, laidback mood for the rest of the event.

To break the ice, all students and staff joined in a fun game of Human Bingo. To win the game (so to call "Bingo"!)) they would have to get all boxes marked in a row, but with a twist. They would have to make conversation and ask around for traits listed on the paper - "Born in the same month", "Can't swim" etc. If the person they were talking to had one of the traits listed down, they would then get his/her signature in the box.

Many students seemed content to spend a few more moments getting to know more about their peers, seniors and juniors, which was the ultimate goal of the Welcome Lunch.

It was a pleasure to see both new and old faces at the beginning of the new academic year. Best of luck to all students and staff in the months to come!



COMPUTER SCIENCE WEEK



The School of Computer Science runs an annual Computer Science (CS) Week in October every year. Jointly organised with Computer Science Society (CSS) and the Careers Advisory Service (CAS), the event aims to enrich students' learning experiences, whilst cultivating a dynamic culture of learning within the CS community.



Last year, the inaugural CS Week 2018 was held between 29th Oct – 2nd Nov'18. Students and staff had the opportunity to participate in various exciting activities which included a field trip to AirAsia, industry talks e.g. by Axiata Digital and alumni sharing session to expose participants to industry trends and career opportunities. To help students acquire new technical and entrepreneurship skills, learning workshops to include IoT development, Design Thinking and Digital Marketing workshops were held. We also had career readiness-related talks to prepare students for jobs in the industry through resume writing and effective communication training sessions led by CAS and P2R respectively. Finally, to help build a strong, vibrant CS community students had a chance to participate in social events.



It was a week filled with fun activities as well as valuable learning opportunities. Come join us in the upcoming Computer Science Week 2019, which will be held from the 21st to the 25th of October 2019!



COMPUTER SCIENCE WEEK HIGHLIGHTS

CS Week is an annual event held by the School of Computer Science, CSS and CAS to promote students' interest and awareness in various fields involving Computer Science and AI.

Social Activities

One of the highlights of the social event during CS Week 2018 was speed networking – like speed dating - and pizza session, in which both staff and students from all years were given a chance to form new connections with their seniors, juniors and lecturers. The aim of this activity was to nurture strong collaborative relationships between everyone in the School of Computer Science family, who would normally not know each other. And we are proud to say that the aim was achieved. There was also The Amazing Race: CS Edition competition, where students were given the opportunity to mix around and work with their peers. They had fun navigating around campus with the clues given to them on where to go, while also performing challenges.

Industrial Talks

During CS Week 2018, an industrial engagement talk was given by Axiata Digital's Ahmad Kashfi, who happens to be a Nottingham alumnus with an MBA (focused in entrepreneurship). Mr Ahmad Kashfi shared a few insights into the job industry for telecommunications. This was a very valuable talk for the students as they gained knowledge they would otherwise be unable to gain from just the classroom. Our thanks go to Mr Ahmad Kashfi and Axiata Digital for coming over to UNM to speak.





HIGHLIGHTS FROM COMPUTER SCIENCE WEEK



AIRASIA FIELD TRIP 2018



As part of Computer Science Week 2018, staff and students both went on a field trip to AirAsia's RedQ. RedQ, short for RedQuarters, is an 18,000 square meter headquarter for AirAsia, located just adjacent to KLIA2. Everything was open plan, even the CEO, Datuk Tony Fernandes, didn't have a walled office.

The students, accompanied by academic staff, Dr Amr Ahmed and Dr Marina Ng, were welcomed by the AirAsia's Allstars – what the company calls their employees. The group was given a guided tour of the entire RedQ complex and later attended a few talks. One of them was given by Dr Sadeshe Manikam, the Head of Data Science and Insights of AirAsia. The talk was on Open Innovation in AirAsia' and you might have already guessed it, was tied in with how AirAsia's unique office space design promotes transparency and reinforces open communication between all employees.

The field trip was interesting and beneficial for both students and staff. Everyone had a blast especially those who went down the multi-storey high slide – and we cannot thank AirAsia enough for having us.

But to those who missed it, if you don't already know, we will indeed be going back! In the upcoming Computer Science Week 2019, (based on popular demand!) a new batch of students and staff will get a chance to visit AirAsia's RedQ!

PETROSAINS FIELD STUDY 2019



On the 12th of February '19, a field study was conducted at PetroSains, KLCC as part of the Human Computer Interaction (HCI) module, led by Dr Marina Ng, the module convener and accompanied by Dr Amr Ahmed, the Head of School. A total of 33 Year 2 undergraduate students from the School of Computer Science participated in the field study which allowed them to gain experience in integrating the theoretical perspectives of interaction design learned in the classroom with experiences gained in the field. Students were greeted by Dr Daniel Loy, PetroSains's Director of Innovation and Learning upon arrival.



PetroSains, housed in Petronas Twin Towers, is a Science Discovery Centre that uses a fun and interactive approach to tell the story of the science and technology of the energy industry. It serves as an excellent venue for students to study user interactions with exhibits and learn how to use novel ways to engage visitors with interactive technologies. Students also came to understand how factors such as the physical environment and context of use are important design considerations in user experience (UX) design. A talk and also a tour were given by Dr Daniel Loy, which allowed them to truly understand 'what visitors want' and 'what works' on the science floor. At the same time, Dr Daniel Loy presented students with 3 'problematic' public exhibits requiring students to propose and develop new prototypes to improve/re-design these exhibits over the course of the module.

A 'pitching' session was held in April '19 where students presented their developed group prototypes at PetroSains to a panel of judges in a UNM-PetroSains Design Challenge competition. The experience of having to present their innovations to the group of people in the industry on the panel of judges was both very beneficial for the students and well appreciated by them. The winning prototype was an interactive exhibit that used the digital projection of oil flow animations and sounds that would activate when someone passes by the Oil Platform station.

The UNM-PetroSains partnership paved the way in revolutionising the way students learn to achieve higher level of engagement and 21st century skill cultivation such as creativity and team working skills.

CELEBRATING WITH STUDENTS

Every year, the top performing students will receive the “Dean’s Scholarship Award” (based on a specified criteria of performance). This provides a discount on their tuition fees.



The “Faculty Award Ceremony”, July 2019 same day as the Graduation Ceremony: “Best Student” award (Certificate + RM500)



The Best Final Year Project Award winner is Yap Cheng Yee for his research and development of App4Autism, an integrated assistive technology with heart rate monitoring for children with autism. Also, his research paper from his thesis findings had been accepted for publication in the 6th International Visual Informatics Conference and will appear in the Springer prestigious Lecture Notes in Computer Science. He received a RM500 cash prize and a “Certificate of Achievement”. He attributed his success to the constant guidance and help from his supervisor, friends, collaborators and support from his family. The project taught him to be patient, determined, and to keep seeking alternative methods until a problem is solved.



STUDENT REPRESENTATIVES & AMBASSADORS


We have students' representative for each year. This gives students the opportunity to raise or discuss any issues. The student representative will be able to present your ideas or issues. There is also a School Students' Representative representing the whole school, at the faculty/university levels.

Here are some words by Miss Fatima Tayeb, The School of Computer Science Student Representative, detailing her CS learning journey:

'I love Computer Science! From the marvellous algorithms that are solving complex problems, to the absolute potential that raw data has, and the absolute excitement of finally finding that pesky bug after hours of staring at the screen. Recognising the power that technology has to impact our lives coupled with my admiration for solving problems inspired me to apply for the Computer Science program here at the University of Nottingham Malaysia.

I was adamant to make the most out of the unique 3-year experience that university provides. One of the most fruitful and insightful experiences I had was being involved in the Education Network as a representative of the School of Computer Science. Whether it was working closely with students and lecturers to ensure their concerns are heard and resolved or organising events to enhance the student's learning experience, my experience as School Rep allowed me to make an impact and made me have a more in depth understanding of how a university functions while giving me the opportunity to strengthen my own communication and teamwork skills. I recommend anyone reading this take initiative and get involved and become the voice of the student body as this leadership position is truly remarkable, meaningful and an impactful experience. Like the wise Gandhi once said "Be the change that you wish to see in the world."

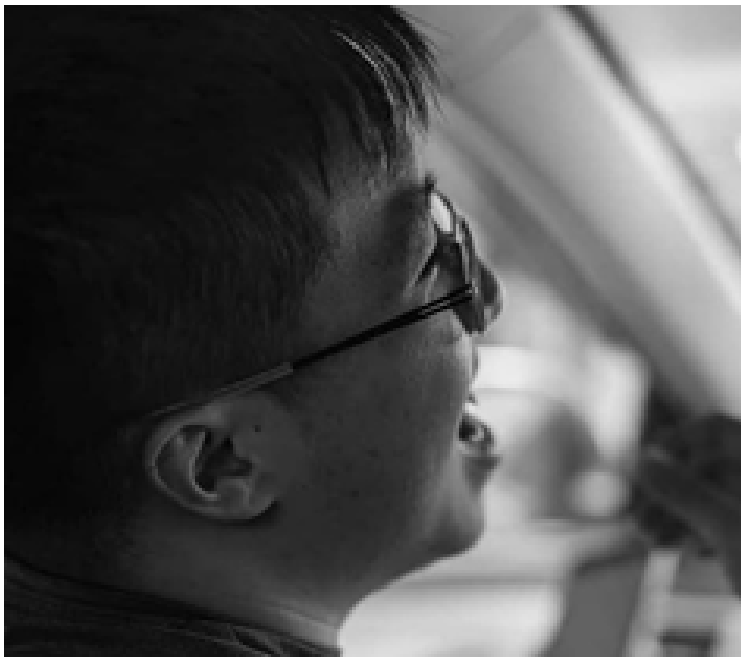




We are also pleased to introduce you to Mr Gerald Kan,
The President of the Computer Science Society who shares
his experience in CSS here:

In my experience so far in CSS, specifically as a President has only been about 5 months long, and my journey in Year 2 has basically just started, but it has been such a fun ride so far. I've enjoyed every single moment through it, even the short nights with minimal hours of sleep, even the meetings I've been having with the committee to bring events for everyone, all the planning so far for our induction on the 9th of October, as well as with the Computer Science Week coming up on the 21st to the 25th October. It has been a fun ride, but it was also very intense, as my work in CSS involves planning for large - scale events such as the upcoming CS Week.

As the President of this Society, I got to do what I was passionate about with a team of people, and I definitely would not have made it this far without them. Our little team of 8 is growing! We are grateful to have received 20+ new applicants from Foundation and Year 1 interested in joining our Junior Committee. We hope that the coming year will be eventful and fulfilling for members of our Society as well as all students in Computer Science!



ALUMNI HIGHLIGHTS

Aaron Tay - 2019 Graduate

Aaron Tay, our recent graduate in the summer of 2019, received a job offer as a Consultant Analyst in Accenture, a global consulting firm after representing the School of CS in the Accenture Elevate Experience – an event that allowed the students to step into the shoe of a real consultant in Accenture to deliver a solution to a case study challenge. Little did he know that the experience would lead him to an offer from Accenture Malaysia! He has since joined the firm and shares some of his tips for success here:

"As for how university prepared me for the workforce, I'd say that co-curricular activities helped a lot (other than good grades). The soft skills I gained such as through the Music Society and 24 Festive Drums were highly transferable to the workforce. My general advice is if you want to achieve something, start working on it now! There's no need to wait for graduation – start early. For example, if you want to develop software, start doing it in your free time.

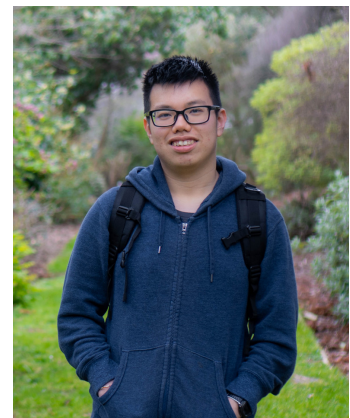
'If your dreams don't scare you, they aren't big enough' - Ellen Johnson Sirleaf"



Lo Wei Hong – 2017 Graduate

Lo Wei Hong graduated in the summer of 2017 with a 1st class degree in BSc(hons) Software Engineering. His research experience as an Undergraduate Research Assistant and Summer Intern in UNM, led him to continue working on multiple UNM research projects which resulted in several paper publications upon graduation. In early 2019, he received a PhD scholarship from University of Otago, New Zealand to carry out his PhD research in 'Mobile Augmented Reality for on-site sports spectator'. He shares his learning journey in UNM here:

"My education journey in UNMC has been a pleasant journey filled with surprises and opportunities. Yes, it was not an easy path, but thanks to the support I've had from my friends, lecturers and especially my supervisor, it made me achieve what I thought was impossible. Good communication and strong support from my supervisor made my research journey an enjoyable and enriching experience in UNM."



OUR TEACHING & LEARNING

In this digital age, learning how to access, process and analyse information, and how to think critically, evaluate and reflect is more important than ever. Recognising the crucial development of 21st century skills among our students, various teaching and learning methods such as maker pedagogy, project-based learning, flipped classes and blended learning activities have been used in the classroom to improve students' team-working, communication, creativity and problem-solving skills.

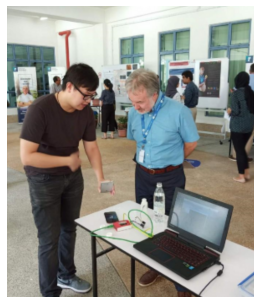
For example, in the HCI module, students learned various prototyping methods and toolkit through hands-on prototyping activities to create an Internet of Things (IoT) Augmented Reality (AR) application and IoT interactive installations. The Software Engineering Group Project is yet another exciting learning platform for students to develop solutions for the industry and present their prototype ideas to the wider school community and industry.



OUR RESEARCH

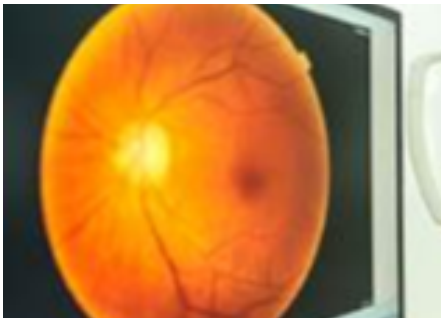
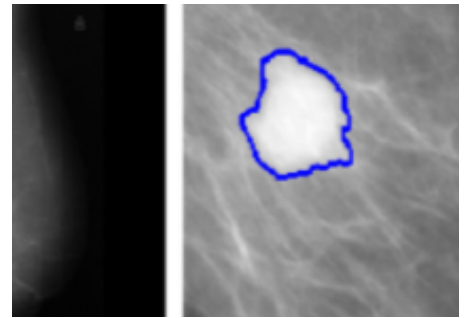
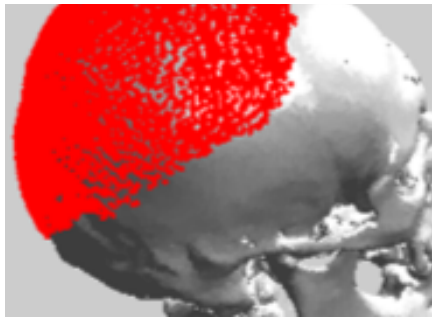
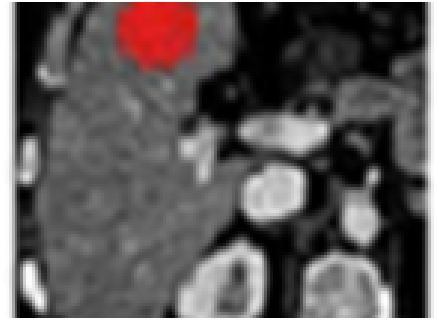
The main research themes in the School of Computer Science include:

- Artificial Intelligence & Machine Learning
- Computer Vision & Image Processing
- Evolutionary Computation
- Human Computer Interaction
- Machine Learning
- Neural Computing



RESEARCH HIGHLIGHTS

MEDICAL & HEALTH



FOOD & AGRICULTURE



HUMAN- COMPUTER INTERACTION



ACADEMIC STAFF



Ahmed, Amr – Associate Professor
Head of School
Research: Artificial intelligence, machine learning, video analysis, medical imaging and other health related applications.
Email: Amr.Ahmed@nottingham.edu.my



Kendall, Graham – Professor
CEO and Provost
Research: Heuristics, meta-heuristics, hyper-heuristics, artificial intelligence.
Email: graham.kendall@nottingham.ac.uk



Chung, Michael – Assistant Professor
Deputy Head of School
Research: Cryptology, computer security and computational mathematics.
Email: michael.chung@nottingham.edu.my



Chew, Sze-Ker – Assistant Professor
Examination Officer (UG)
Research: Software Engineering
Email: chew.sze-ker@nottingham.edu.my



Maul, Tomas – Associate Professor
Director of Research
Research: Neural computation, natural computation, optimisation, machine learning and artificial intelligence. Email: Tomas.Maul@nottingham.edu.my



Chen, Zhi Yuan – Assistant Professor
PGRs Director
Research: Artificial intelligence, machine learning, data mining, simulation and user modelling.
Email: Zhiyuan.Chen@nottingham.edu.my



Liao, Iman Yi – Associate Professor
Director of Teaching & Learning
Research: Computer vision and image processing.
Email: Iman.Liao@nottingham.edu.my



Ng, Marina – Assistant Professor
Marketing Officer
Research: Human-Computer Interaction and Internet of Things
Email: Marina.Ng@nottingham.edu.my



Chong, Siang Yew – Associate Professor
Research: Strategic decision-making systems.
Email: siang-yew.chong@nottingham.edu.my



Neoh, Siew Chin – Assistant Professor
Examination Officer (PGR)
Research: Intelligent Diagnostic Tools for Cancer Detection.
Email: SiewChin.Neoh@nottingham.edu.my



Selvaraj, K R – Assistant Professor
Senior Tutor
Research: Intelligent Decision Support focusing on E-Learning
Email: kr.selvaraj@nottingham.edu.my

WORD SEARCH

B L O Y L C H W E M X N M O O
N B A Y G N I R M F U Q H T U
C W N N C O A G M Z R I T P A
W R X A G W L D O O I K I R C
M G X Z T U Z O Q L E B R O C
I H P F H U A I N N S D O G L
Q Z O M C C X G H H I V G R N
A S S E M B L Y E F C R L A S
R E V I E C S N A R T E A M B
L E Z L L O Q D K T C W T O E
X M N C X P A J T B T E O Z X
Z L Y R A N I B K C B L K G R
I A I T O A M E S Q E P B R H
J V L Y R K P A B A R V M N D
Y A P X V X M X N B O Q J K U

ALGORITHM
ASSEMBLY
BINARY
BOOLEAN
LANGUAGE

LOGIC
PROGRAM
SOFTWARE
TECHNOLOGY
TRANSCIVER

Visit our websites for more information:

CS School webpage: <https://www.nottingham.edu.my/ComputerScience/index.aspx>

CS News webpage: <https://www.nottingham.edu.my/ComputerScience/News/index.aspx>

Download Prospectus: <https://www.nottingham.edu.my/Study/Download-our-brochures/Courseguidesbrochures.aspx>

Faculty of Science and Engineering

University of Nottingham Malaysia
Jalan Broga, 43500 Semenyih
Selangor Darul Ehsan
Malaysia

Telephone: +6 (03) 8924 8000
Fax: +6 (03) 8924 8018