

President's Foreword



Since its inauguration in 2011, the Academy's fellowship currently stands at 114 strong with the election of 11 new fellows in 2019. Our eminent engineers come from both the public and private sectors in diverse fields. They serve as a role model to inspire the next generation of engineers. Their expertise and experience are also tapped to lead discussion by guiding informed thinking on engineering related public policies.

It is well recognised that engineering has always been the backbone of Singapore's progress and has contributed significantly to Singapore's economic, infrastructural and social developments in the last 50 years. The next phase of nation building continues to require engineering expertise, whether it is for upgrading infrastructure, addressing issues related to climate change, or building Singapore's vision of becoming a Smart Nation.

Many of the key attributes of engineers of tomorrow are similar to those of yesterday and today but they are made more complex by the impact of disruptive technology.

Besides possessing strong analytical skills, practical ingenuity, creativity, good communication and leadership skills, engineers need to acquire the skill to solve problems. Computers and robots are going to be smarter than human beings. Instead of competing with them head-on, engineers should learn how to use them to do the tasks for us. Engineers also need to be lifelong learners. The Lifelong learning coupled with being Energetic, Adaptable, Resilient and Nimble (LEARN) will redefine the essential characteristics of the new engineers in deepening the engineering capabilities in Singapore. The ability to re-skill and up-skill quickly and apply new knowledge to new problems and new contexts will be vital in the uncertain and changing character of the world around us. In this context, Fellows of the Academy can offer and share their expertise, knowledge and wisdom to the engineering community. I see the Academy playing a major role in the LEARN journey of our future engineers.

Professor Cham Tao Soon

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New Fellows

The Academy's fellowship currently stands at 114 strong with the election of 11 new fellows, as at 31 January 2020. We are pleased to welcome the following new Fellows to the Academy.



Professor Chen I-Ming

CEO
Transforma Robotics Pte Ltd
Professor, School of Mechanical and
Aerospace Engineering
Nanyang Technological University, Singapore (NTU
Singapore)

Prof Chen I-Ming is a full professor in the School of Mechanical and Aerospace Engineering at NTU Singapore. He received his Bachelor of Science degree from National Taiwan University in 1986, and Master's and PhD degrees from California Institute of Technology in 1989 and 1994 respectively. His research interests are in logistics and construction robots, wearable devices, human-robot interaction and industrial automation. He and his researchers have won many international robotics competitions including 2017 Amazon Robotics Challenge, 2017 DHL Robotics Challenge, 2018 IROS Mobile Manipulation Hackathon, and the International Grand Prize of Hong Kong CIC Construction Innovation Award 2019.

He was Director of Robotics Research Centre in NTU from 2013 to 2017. He was a member of the NRF Robotics Task Force 2014 which is responsible for Singapore's strategic R&D plan in future robotics. He was the General Chairman of 2017 IEEE International Conference on Robotics and Automation in Singapore. He is also the Editor-in-chief of the IEEE/ASME Transactions on Mechatronics from 2020 to 2022. He co-founded two robotics start-up companies in Singapore: Transforma Robotics Pte Ltd developing robots for construction industry and Hand Plus Robotics Pte Ltd developing robotics and AI solutions for logistics and manufacturing industry.

Prof Chen is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) and a Fellow of the American Society of Mechanical Engineers (ASME).

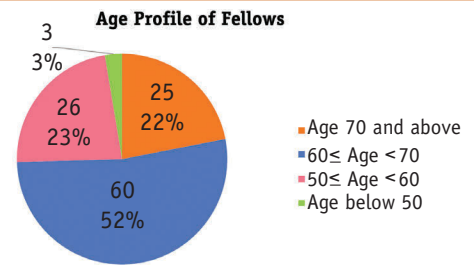


Professor Chen Zhining

Deputy Director, Advanced Research and
Technology Innovation Centre
Professor and Programme Director (Industry),
Department of Electrical and
Computer Engineering
National University of Singapore (NUS)

Prof Chen Zhining is a full professor and Programme Director (Industry) in the Department of Electrical and Computer Engineering at NUS. He is also Deputy Director of Advanced Research and Technology Innovation Centre in the Faculty of Engineering, NUS. Prior to NUS, Prof Chen worked in IBM Watson Research Center (USA) and Institute of Infocomm Research, A*STAR as Department Head/Principal Scientist and Technical Advisor.

Prof Chen specialises in microwave/RF and electromagnetic engineering, in particular antenna theory and engineering. He has authored six books, 12 book chapters and over 660 scientific papers. He has 32 filed and granted technical patents and achieved more than 35 times licenses with industry. He has been invited to present over 120 plenary/keynote/invited talks in international conferences. He has established four international academic and technical conferences as founding general chairs.



Prof Chen was elevated to IEEE Fellow in 2007 for his contributions to small and broadband antennas for wireless systems. He received the CST University Publication Award in 2008 and 2015, ASEAN Outstanding Engineering Achievement Award in 2013, IES Prestigious Engineering Achievement Award in 2006, 2013 (two awards), and 2014. He has been serving the IEEE Council on RFID as a Vice President and a Distinguished Lecturer since 2015. He also served as an Associate Editor of the IEEE Transactions on Antennas and Propagation and as a Distinguished Lecturer of the IEEE Antennas and Propagation Society. He has provided 11 local and overseas telecommunication and IT MNCs and SMEs with the technical consultancy service as a Technical Advisor, a Guest Professor, and a Chief Scientist.



Mr Chow Khim Kun, Andrew

President, Singapore Business of Electronics
Singapore Technologies Engineering Ltd (ST
Engineering)

Mr Andrew Chow is the President, Singapore Business of Electronics, ST Engineering. He leads and drives the business growth in Singapore, and the strategic partnerships across Mobility, Public Safety & Security, IoT & Smart Cities, and Information Communications Technologies (ICT) solutions.

With over 30 years of technology and transportation experience, Mr Chow has held various leadership and management positions. Previously, he was the President of ST Electronics (Info-Comm Systems), where he focused on driving the info-communications, electronics and intelligent transportation systems domains. He was the General Manager of ST Electronics (Info-Security), which specialises in the design, development and delivery of info-assurance products and cybersecurity solutions.

Mr Chow was elected as the President of the Intelligent Transportation Society of Singapore (ITSS) since 2015, and he co-chaired the organisation of the Intelligent Transport Systems World Congress (ITSWC) 2019 hosted in Singapore. He is also the Deputy Chair of the Electrical & Electronics Standards Committee of the Singapore Standards Council, and a member of the Pro-Enterprise Panel committee under the Ministry of Trade & Industry.

Mr Chow holds a Bachelor of Engineering (Honours) from the Nanyang Technological University, Singapore. He also attended the Programme for Executive Development (PED) at the International Institute for Management Development (IMD), Switzerland in 2006.



Professor Robert Deng Huijie

AXA Chair Professor of Cybersecurity and
Director of Secure Mobile Centre
Deputy Dean for Faculty & Research,
School of Information Systems
Singapore Management University (SMU)

Prof Robert Deng is currently AXA Chair Professor of Cybersecurity, Director of the Secure Mobile Centre, and Deputy Dean for Faculty & Research in the School of Information Systems at SMU. He has been

Professor of Information Systems at SMU since 2004. Prior to that, he was Principal Scientist and Manager of Infocomm Security Department, Institute for Infocomm Research at A*STAR. Since April 2019, he has been Programme Director of the National Satellite of Excellence in Mobile Systems Security and Cloud Security, a five-year research initiative sponsored by NRF's National Cybersecurity R&D programme.

Prof Deng specialises in cybersecurity, including data security and privacy, cloud security, network and distributed systems security. He serves/served on many editorial boards and conference committees, including the editorial boards of ACM Transactions on Privacy and Security, IEEE Security and Privacy, IEEE Transactions on Dependable and Secure Computing, IEEE Transactions on Information Forensics and Security, Journal of Computer Science and Technology, and Steering Committee Chair of the ACM Asia Conference on Computer and Communications Security.

He received the Outstanding University Researcher Award from NUS in 1999, Lee Kuan Yew Fellowship for Research Excellence from SMU in 2005, Asia-Pacific Information Security Leadership Achievements Community Service Star from International Information Systems Security Certification Consortium in 2010, and was elevated to IEEE Fellow in 2016.



Professor Fwa Tien Fang

Emeritus Professor, Department of Civil and Environmental Engineering
National University of Singapore (NUS)
Visiting Distinguished Professor
Chang'an University, China

Prof Fwa Tien Fang has been a faculty member of NUS since 1985. He is currently a Visiting Distinguished Professor with the School of Highway of Chang'an University, the largest highway engineering school in China. He received his B.Eng (First Class Honour) from the then University of Singapore, M.Eng from the University of Waterloo, Canada, and PhD from Purdue University, USA.

Prof Fwa's main research area covers highway and airfield engineering. He has published more than 400 journal and conference papers, with more than 200 technical papers in leading international journals in the last 35 years. He has been invited to lecture and make technical presentations in more than 20 countries, including keynote lectures at international conferences. He is the Associate Editor of three, and Editorial Board member of another four top international journals in highway and airfield engineering. He served as the Director of NUS Centre for Transportation Research from 1990 to 2016, and Deputy Director of NUS Centre for Maritime Studies from 2005 to 2018. He was the Head of Department of Civil and Environmental Engineering of NUS from 2000 to 2005.

Prof Fwa has been actively promoting pavement engineering R&D in the East Asian region through two international conferences. He was the Founding Chairman of the ICPT International Committee that runs the International Conference on Road and Airfield Pavement Technology since 1993, and also the Founding Chairman of the APTE International Committee that organises the Asia Pacific Conference on Transportation and the Environment since 1998. He is currently a Board member and Immediate Past President of the International Society for Maintenance and Rehabilitation of Transport Infrastructure, and Special Advisor to the International Association of Traffic and Safety Sciences. He was Board Member of the Eastern Asia Society for Transportation Studies (EASTS) from 1994 to 2016. Locally, he is the founding and current President of the Pavement Engineering Society (Singapore).



Professor Lam Yee Cheong

Professor, School of Mechanical and Aerospace Engineering
Nanyang Technological University, Singapore (NTU Singapore)

Prof Lam is currently a full professor in the School of Mechanical and Aerospace Engineering, and the Senior Faculty-in-Residence of Hall 2 at NTU Singapore. He was previously Associate Chair (Faculty), Associate Chair (Research), and Acting Head of Manufacturing Division of the School. He has held joint appointment as Principal Scientist, Singapore Institute of Manufacturing Technology, and as Fellow, Singapore-MIT Alliance. His current research focuses on microfluidics, laser machining, and optimisation of manufacturing processes.

He obtained his Bachelor of Mechanical Engineering in 1979 from the University of Melbourne, and was awarded the Dixon Scholarship for Outstanding Academic Achievement. Subsequently, he obtained his PhD in 1983 from the same University and was awarded the M.H. de Fina Memorial Prize for the Best Postgraduate Student.

He joined Monash University, Australia in 1984, and was promoted to Reader before leaving Australia for Singapore in 1997. He was the Head (Monash Node) of the Cooperative Research Centre for Advanced Composite Structure (CRC-ACS), a Director of the Far East Oceanic Fracture Society, and President of the Australian Fracture Group. He has been invited by the University of Melbourne to deliver the prestigious Tewksbury Lecture, and Monash University the Harold Armstrong Memorial Lectures.



Professor Ma Kai-Kuang

Professor, School of Electrical and Electronic Engineering
Nanyang Technological University, Singapore (NTU Singapore)

Prof Ma is a full professor in the School of Electrical and Electronic Engineering at NTU Singapore. He received his PhD degree from North Carolina State University and Master's degree from Duke University. He was elected to IEEE Fellow for his contributions on Image Processing and Digital Video Coding Technologies. His two fast motion estimation algorithms have been adopted in MPEG international standard which is the backbone of many multimedia technology products and platforms such as the DVD player and Internet streaming. He was a Distinguished Lecturer of the IEEE Circuits and Systems Society from 2008 to 2009.

Prior to joining NTU in 1995, he was a Member of Technical Staff at Institute of Microelectronics (IME), Singapore and a researcher in IBM Corporation at New York and North Carolina, USA. At NTU, his research interest has been focusing on digital image/video compression and processing, computer vision and machine intelligence. He has secured numerous external and international research grants, including the prestigious Singapore MINDEF, United States' DAPAR, and Sweden's WASP. He has published extensively in top tier journals.

Prof Ma has been actively serving various technical and municipal communities. He was Singapore MPEG Chairman and Head of Delegation from 1997 to 2002. He participated in the Smart Nation project and was awarded a Municipal Services Award 2018 (Team Category) in recognition of his machine intelligence-based video analytics research. He has been serving as an Associate Editor, Editor, and Senior Area Editor in various top tier IEEE transactions for over 20 years. In 2018, he received a Merit Award from the IEEE Transactions on Image

Processing for his outstanding editorial board service as a Senior Area Editor. He has also been actively organising or serving various roles in top international conferences.



Professor Miao Chunyan

Chair, School of Computer Science and Engineering
President's Chair in Computer Science
Nanyang Technological University, Singapore
(NTU Singapore)

Prof Miao Chunyan is a President's Chair in Computer Science and the Chair of the School of Computer Science and Engineering (SCSE) at NTU Singapore. She received her PhD degree in Computer Engineering from NTU and was an NSERC Postdoctoral Fellow at Simon Fraser University (SFU), Canada. She was a founding faculty member of the Centre for Digital Media established by The University of British Columbia (UBC) and SFU. She was also a Tan Chin Tuan Engineering Fellow at Harvard and MIT.

Prof Miao has received over 20 Best Paper/innovation awards in Artificial intelligence (AI) and real world AI applications for her impactful research in health, ageing, education and smart services. She is a recipient of the prestigious NRF Investigatorship Award 2018. She also holds major research funding including MOH National Innovation Challenge (NIC) on Ageing award 2018 and NRF AI.SG Health Grand Challenge Award 2019. She is the Founding Director of the Joint NTU-UBC Research Centre of Excellence in Active Living for the Elderly (LILY), Singapore's first centre focusing on AI empowered solutions to population ageing challenges. She is also the Founding Director of the Alibaba-NTU Singapore Joint Research Institute (JRI), Alibaba's first and largest JRI outside China.

She is an Editor/Associate Editor of leading international journals including IJIT, IEEE Big Data, IEEE IoT, IEEE Access and IEEE Service Computing and has served as Chair/TPC member of international conferences such as IEEE ICA, ICAA, ACM KDD. She serves on various national committees, including the MOH City for All Ages and Health Tech, the IMDA TechSkills Accelerator (TeSA) and is the Chair of the SCS AI Ethics Review Committee. She was awarded a Public Administration Medal (Bronze) from the President of Singapore in 2016.



Professor Ng How Yong

Director, NUS Environmental Research Institute and Semcorp-NUS Corporate Laboratory
Provost Chair's Professor, Department of Civil and Environmental Engineering
National University of Singapore (NUS)

Prof Ng How Yong is a Provost Chair's Professor in the Department of Civil and Environmental Engineering, Director of Environmental Research Institute and Director of the Semcorp-NUS Corporate Laboratory at NUS.

He specialises in biological treatment and membrane processes. To date, he has contributed more than 400 publications in international journals and conference papers. He is a world expert in membrane bioreactor. He was selected out of hundreds of candidates worldwide to receive the prestigious 2006 International Water Association (IWA) Young Professionals Award. He is the recipient of the Singapore Young Scientist Award in 2007, Singapore Youth Award (Science and Technology) in 2008 and NUS Young Researcher Award in 2009. In 2014, he received the IWA Asia Pacific Regional Project Innovation Award for the "Development of Microbial Electrochemical Sensor (MES) for Heavy Metals and Cyanide Detection in Used Water". This technology has contributed to Singapore by detecting heavy metals contamination in sewage due to illegal or accidental discharge, safeguarding the production of NEWater. It has been commercialised through a NUS startup, EnvironSens Pte Ltd, with PUB as the first adopter, and is currently being introduced into China. He also serves as an advisor to Watroam Pte Ltd, a water-innovation social enterprise that supplies portable water filters for disaster relief and rural development. As of 2018, Watroam has reached 70,000 people, across 14 countries.

Prof Ng has contributed to the profession as an Associate Editor of Water Research, an Editor of the Journal of Water Reuse and Desalination and the

Vice-Chair of the IWA Membrane Technology Specialist Group (MTSG). He is currently the President of the Environmental Engineering Society of Singapore and has organised large international water conferences over the years. For his contributions in the field, he has been elected as a Fellow of the IWA and a Board Certified Environmental Engineering Member of the American Academy of Environmental Engineers & Scientists which recognises highly qualified professionals by virtue of their accomplishments.



Mr Ravinder Singh

President, Electronics, and President, Defence Business
Singapore Technologies Engineering Ltd (ST Engineering)

Mr Ravinder Singh is the President Electronics, ST Engineering, where he oversees businesses in Satellite Systems and Communications, Mobility, Public Safety and Security, IoT, Cybersecurity and Defence. He is also the President, Defence Business where he oversees the Defence products, services and solutions business for the Group.

With over 30 years of technology and defence experience, Mr Singh has held various management and leadership positions including President, Land Systems, ST Engineering. Under his leadership, the Land Systems sector saw the development of innovative solutions for its customers in the defence and specialty vehicles segments, and built new capabilities in Autonomous Vehicles and Robotics, as well as the growth in its international Defence business. In his earlier career, he served as the Chief of Army, Singapore Armed Forces (SAF) and the Deputy Secretary (Technology), Ministry of Defence, Singapore. During his career in the Singapore Armed Forces, he was conferred the Public Administration Medal (Military), Gold and Silver.

Mr Singh serves as the Deputy Chairman of National Environment Agency Board, and also sits on the board of the Agency for Science, Technology and Research. He is a member of the Services and Digital Economy Technology Roadmap Steering Committee, Infocomm Media Development Authority, and the Committee on Autonomous Road Transport for Singapore, Ministry of Transport.

He holds a Bachelor of Arts in Engineering Science and a Master of Arts in Engineering Science from the University of Oxford. He was awarded the Singapore Armed Forces Postgraduate Scholarship and graduated from the Massachusetts Institute of Technology with a Master of Science in Management. He also attended the Advance Management programme in Wharton School.



Professor Wang Rong

Chair, School of Civil and Environmental Engineering
President's Chair in Civil and Environmental Engineering
Nanyang Technological University, Singapore (NTU Singapore)

Professor Wang Rong is a President's Chair in Civil and Environmental Engineering and has been Chair of the School of Civil and Environmental Engineering (CEE) at NTU Singapore since 2014. In addition to her chairship, she has led the Singapore Membrane Technology Centre (SMTC) as Deputy Director from 2008 to 2011 and Director since 2012.

Prior to joining CEE, NTU, Prof Wang was a Senior Research Scientist/Group Leader/Deputy Centre Director/Centre Director at the Institute of Environmental Science & Engineering (IESE), Singapore. She also worked at the Institute of Process Engineering, Chinese Academy of Sciences (CAS) as an Assistant Professor/Associate Professor before joining IESE in 1999. She received her Bachelor degree from Zhejiang University, China in 1984 and PhD degree from CAS in 1992.

Prof Wang has over 30 years of experience in Chemical and Environmental Engineering, Water and Energy related research, innovation and technology translation. She focuses on novel membrane development with over 280 SCI journal publications with a citation count of over 13,000 and a h-index of 67 (@Web of Science, as of 2019), and her inventions led to two spin-off membrane companies. She serves as an Editor of Journal of Membrane Science (JMS) since 2014. She becomes Co-Editor-in-Chief of JMS since January 2020. She is also

on the editorial board of Desalination since 2011. She is the founding President of Membrane Society in Singapore (MEMSIS).

Prof Wang was featured among the top 25 leading water researchers globally by Lux Research in 2013, and was the winner of Singapore Minister for National Development R&D Award in 2013. She received the prestigious "Alternative Water Prize" from Prince Sultan Bin Abdulaziz International Prize for Water (PSIPW) of Saudi Arabia in 2016. She was awarded the Nanyang Research Award in 2018.

In Memory

The Academy honours the memory of the following Fellow who had passed on.

Professor Chen Charng Ning (Left us on 30 November 2019)

► Awards & Honours

Our heartiest congratulations to the following Fellows who had been bestowed with various prestigious honours and awards by the respective professional institutions and organisations in 2019.

Mr J Y Pillay

- **The Order of Temasek (with Distinction)**, National Day Awards 2019 conferred by the President of the Republic of Singapore.

Mr Lim Chee Onn

- **The Order of Nila Utama (with High Distinction)**, National Day Awards 2019 conferred by the President of the Republic of Singapore.

Mr Chiang Chie Foo

- **The Distinguished Service Order, National Day Awards 2019** conferred by the President of the Republic of Singapore.

Professor Chen I-Ming

- **International Grand Prize, Hong Kong CIC (Construction Industry Council) Construction Innovation Award 2019** for the development and commercialisation of intelligent robotic systems for interior finishing and quality inspection.

Professor Chung Tai-Shung (Neal)

- **Highly Cited Researcher 2019** by Clarivate Analytics for ranking in the top 1% by citations for field and publication year in Clarivate's Web of Science database.

Professor Lee Tong Heng

- **ACA Outstanding Service Award 2019** by Asian Control Association (ACA) in recognition and appreciation of his distinguished contributions to ACA.

Professor Lim Chwee Teck

- **Highly Cited Researcher 2019** by Clarivate Analytics for ranking in the top 1% by citations for field and publication year in Clarivate's Web of Science database.
- **Long Service Medal, National Day Awards 2019** conferred by the Government of Singapore for his outstanding contributions and service to the nation.

Mr Lim Soon Hock

- **Singapore HPC Pioneer & Achievement Award**, Supercomputing Asia 2019 by National Supercomputing (NSCC) Singapore for his contributions as an HPC Pioneer and his founding achievements in Singapore.

Professor Su Guanng

- **Fellow of the US National Academy of Engineering** for his contributions to regional security and for his academic leadership.

Professor Wang Chien Ming

- **Fellow of the Australian Academy of Technology and Engineering** in recognition of his pioneering work in shear deformable beam/plate theories, very large floating structures, nonlocal structural mechanics and leadership in structural engineering.
- **JN Reddy Medal 2019** by the Mechanics of Advanced Materials and Structures Journal for his original and sustained contributions to the advancement of Structural Mechanics.
- **Nishino Medal 2019** by the East Asia-Pacific Conference on Structural Engineering and Construction in recognition of his distinguished achievements and contributions in the area of structural engineering and construction in the Asia-Pacific region.



Ninth Annual General Meeting

The Academy of Engineering, Singapore held its ninth Annual General Meeting (AGM) in September 2019, at The Institution of Engineers, Singapore.

President Cham welcomed all Fellows before Professor Louis Phee presented the Secretary's report to the meeting. He requested that Fellows continue nominating young actors in the academia and industry for SAEng Fellowship and encouraged all Fellows to take time out to contribute to the Academy's projects and activities. He invited the meeting for comments and suggestions on the projects presented in the Secretary's report, to which the Fellows gave their endorsement without any amendment.

Professor Andrew Nee presented the Treasurer's report on the Academy's financial status for year ending 31 December 2018 to the meeting for comments. President Cham informed that the Academy's financial position was healthy and that he will write to the Fellows for donations to the Academy after the Academy's IPC status is renewed. He hoped that the SAEng reserves could be increased to S\$100,000. With regard to the SAEng annual newsletter, he felt that maintaining the current small quantity of 200 hardcopies would be appropriate for distribution to stakeholders. The Treasurer's report was endorsed without any amendment.

During the meeting, the following nominees were proposed for the election of Executive Committee Members:

President: Prof Cham Tao Soon

Secretary: Prof Louis Phee

Treasurer: Prof Cheong Hee Kiat

Ex-officio – President IES: Prof Yeoh Lean Weng

Ordinary Committee Members:

Er Chong Kee Sen

Dr Lee Shiang Long

Prof Chong Tow Chong

Prof Liu Bin

Prof Chou Siaw Kiang

Prof Andrew Nee Yeh Ching

Prof Hang Chang Chieh

Mr Seah Moon Ming

Prof Lee Der-Horng

Prof Tan Thiam Soon

Mr Gan Boon Jin and Prof Lock Kai Sang volunteered for the Honorary Auditor nomination for the new term. Fellows approved the election of the above Executive Committee Members and Honorary Auditors for the new two-year term. President Cham highlighted the importance of succession planning and introducing new blood to the Committee and requested nominations of young Fellows to be elected as Committee members.

President Cham also requested the meeting for suggestions and proposals for the Academy to build linkages with South East Asian academies such as those in Malaysia, Thailand and Indonesia and commented that the Academy can consider extending its reach to north Asian counterparts when there are opportunities.

In closing, the President expressed his appreciation and thanks to the Executive Committee Members and the project groups who have dedicated precious time and hard work in pursuing the Academy's mission and objectives for the past year and thanked IES and Fellows for their valuable and generous support towards the Academy's activities.



Prof Cham Tao Soon
President



Prof Louis Phee

Secretary



Prof Cheong Hee Kiat

Treasurer



Prof Yeoh Lean Weng

Ex-officio – President IES



Er Chong Kee Sen

Ordinary Member



Prof Chong Tow Chong

Ordinary Member



Prof Chou Siaw Kiang

Ordinary Member



Prof Hang Chang Chieh

Ordinary Member



Prof Lee Der-Horng

Ordinary Member



Dr Lee Shiang Long

Ordinary Member



Prof Liu Bin

Ordinary Member



Prof Nee Yeh Ching Andrew

Ordinary Member



Mr Seah Moon Ming

Ordinary Member



Prof Tan Thiam Soon

Ordinary Member

► Developing Singapore's Industry Engineering Talents

Singapore Institute of Technology's Industrial Programmes to Meet Industry's Needs

The Academy initiated the idea of introducing engineering doctorate degree programme at local universities in 2015 with the goal to upgrade industry engineering talent using their industry projects to earn a higher degree (at doctoral or master degree level). At the same time, the proposed programme provides a platform to foster quality collaboration between industry and academia that will augment Singapore's economic growth and development. Accordingly, the Academy's proposal has been well received and supported by the local universities with National University of Singapore and Singapore University of Technology launching their engineering doctoral programme in 2018.

This year, Singapore Institute of Technology (SIT) will pioneer both its industrial master and doctorate degree programmes that will educate and train advanced engineering manpower for Singapore's industry, leading to a master and doctorate degree qualification respectively. Building on its successful work-study degree programme, SIT develops the curriculum of both programmes that enable students to work on industry-derived research projects jointly hosted and supervised by SIT and the industry. Collaborating and developing with its industrial

partners, these industrial research projects aim to advance an organisation's practice, business or processes, reaping strategic returns on the evidence of innovative application of technical knowledge, commercial relevance and financial sustenance. Besides industrial-based research, students will also have to complete modules in SIT which are designed to equip professionals with both applied research and project/technology management skills.

A unique feature of SIT's programmes is that they allow students to customise and pace their own learning and knowledge acquisition to suit their individual upskilling and project needs. In this regard, student can spread and complete technical specialisation modules over the entire duration of their candidature instead of having them front-loaded. Recognising the competitive advantages offered by SIT's programmes, the industry has shown keen interest to partner SIT in embarking on these programmes. In this respect, TUV SUD, NTUC Health and Sembcorp Marine are amongst several industry players who will participate in SIT's inaugural programmes.

Making a Donation

The Academy of Engineering, Singapore (SAEng) is a not-for-profit entity registered in Singapore, funded by contributions from individuals and private organisations. Your donations will enable the Academy to develop and sustain projects to attract aspiring engineers, encourage innovation, and provide support to advance and promote excellence in engineering, and also improve the public awareness and understanding of engineering in Singapore.

To make a contribution to the Academy, please contact saeng@ntu.edu.sg.

Our Donors

The Academy has received a total of S\$131,570 from organisations and individual donors thus far. We would like to express our sincere gratitude to all generous individuals and organisations that have supported the Academy over the past eight years. Here is our 2011-2019 Honour Roll of Donors:

Organisations (\$10,000 and above)

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Organisations (up to \$4,999)

The Tan Chin Tuan
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Individuals (up to \$4,999)

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Chang Meng Teng
Choo Chiau Beng
Lee Ek Tieng
Seah Moon Ming
Tan Thiam Soon

Patron
DPM Teo Chee Hean

Executive Committee

President
Cham Tao Soon

Secretary
Louis Phee

Treasurer
Cheong Hee Kiat

Ex-officio – President IES
Yeoh Lean Weng

Ordinary Member
Chong Kee Sen
Chong Tow Chong
Chou Siaw Kiang
Hang Chang Chieh
Lee Der-Hong
Lee Shiang Long
Liu Bin
Andrew Nee Yeh Ching
Seah Moon Ming
Tan Thiam Soon

Editor
Er Meng Hwa

Honorary Auditor
Gan Boon Jin
Lock Kai Sang



ISSN 2345-7589

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Feedback on the Newsletter is welcome as well as all communications that you may wish to make and which we may publish. To contribute an article/give us your feedback, email us at secretariat@saeng.sg
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This newsletter is published for The Academy of Engineering, Singapore (SAEng) by World Scientific Publishing Co Pte Ltd.



Printed on FSC™ certified paper in support of responsible earth.

The Academy of Engineering,
Singapore

c/o Institution of Engineers
70 Bukit Tinggi Road,
Singapore 289758.
<http://www.saeng.sg/>