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About MSA

The Society aims to represent and promote the activities in membrane science and technology both in the research and industrial sectors.

Our Vision

- To be the nexus of membrane science and technology activity in the Australasia region;
- To promote collaborative engagements across the community to disseminate membrane technology to end users; and
- To capture current research and industry involvement and highlight future trends.

Our Mission

The MSA is to represent Membrane Science and Technology in Australasia realising that this will be aligned with societal needs.

This will be achieved by:

- providing an open forum for transferring and sharing technologies as well as capabilities within the members, industries and high education organizations;
- supporting multidisciplinary networking events;
- providing leadership and mentorship in membrane science for the Australasian membrane community;
- promoting opportunities for young members; and
- and enabling wider understanding of the membrane technologies for public interest.



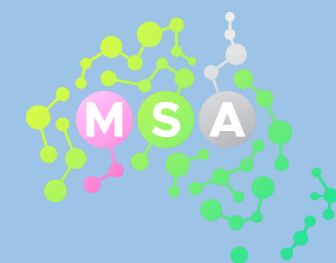
Messages From the President & Vice President

First of all, we would like to thank all the MSA members and the Board of Directors for your help in successfully developing the MSA in 2018-19, and celebrating the 10th Anniversary of the MSA spirit. Over the last year, the MSA has continued to grow, providing a platform to students, researchers and companies to share, promote and support the development and application of membrane technologies in Australasia, Asia and the world.

Adoption and normalisation of membrane technologies are a continuing global trend, driven by growing social and environmental pressures as well as increasing regulation. In Australia for example, membrane desalination is used by some coastal cities for topping up drinking water supplies from seawater, and is set to be adopted more widely in our inland communities to combat the potential health and human costs of the ongoing inland droughts. Within this context, we are pleased to acknowledge the work of the MSA's Board of Directors who continue to connect and grow our community of membrane technology researchers, manufacturers and users; working to develop solutions for important problems like this. We made great strides towards achieving our five 2018-19 MSA strategic goals including i) membership growth, ii) industry engagement, iii) regional engagement, iv) international engagement, and v) marketing. We are proud of the board and MSA's members for assisting to deliver these challenging MSA priorities, and will continue the momentum to further improve the organisation.

The MSA's Board of Directors have been very active in working to support our membership, expand the associations regional and global involvement, and secure important regional technology events. We recently supported a number of our young members via travel awards to attend MST 2019 in Singapore, IMCT 2019 in Taiwan, and AMS12 in Korea, and foster ties to these important regional neighbours. Looking forwards towards 2020, there are a number of high profile membrane technology events being supported by the MSA including the New Zealand Water Symposium (Auckland, November 2019), IMSTEC 2020 (Sydney, February 2020), iEESEP (Melbourne, November 2019), MEMDES (Perth, December, 2019) and the 2020 MSA ECR Symposium (Sydney, February 2020). The board is also working to support and secure a number of regionally significant events occurring further into the future, including workshops with the Malaysian Membrane Society and an exchange program with the Taiwan Membrane Society.

Lastly, we would like to thank our members for your involvement and support and make you aware that the MSA will be holding elections for our Board of Directors in October and our Annual General Meeting in November. We encourage you to get involved. We look forward to seeing you at the next MSA event.



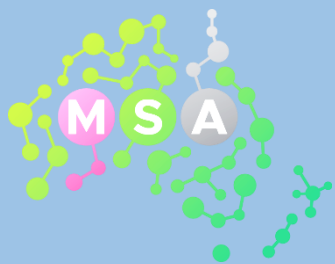
Prof. Hokyoung Shon
President

ARC Future Fellow
Deputy Director of Centre for
Technology in Water and Wastewater
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Dr Geoffrey Johnston-Hall,
Vice President

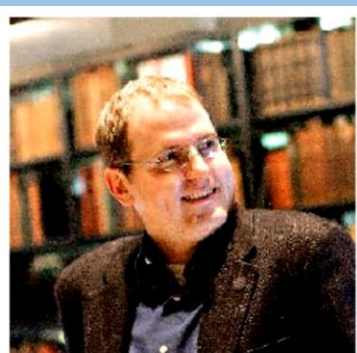
Principal Scientist
Evoqua Water Technologies
SOUTH WINDSOR, NEW SOUTH WALES,
SYDNEY
<https://www.linkedin.com/in/geoffrey-johnston-hall-3173b37b/?originalSubdomain=au>



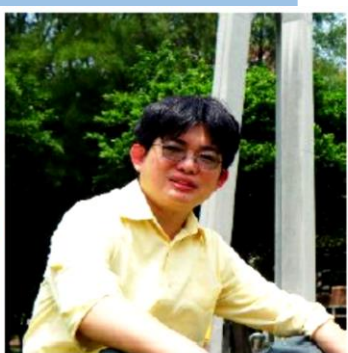
Prof. Rong Wang (Chair)
Director of Singapore Membrane
Technology Centre,
Nanyang Technological University
Singapore

This year, 14th International Conference of Membrane Science & Technology 2019 was held at Nanyang Technological University (13 – 14 June) hosted by Singapore Membrane Technology Centre (SMTC) and chaired by Prof. Rong Wang.

The event runs biennially and organised by Singapore, Malaysia, Indonesia, Thailand and Iran. With more than 150 attendees, the MST2019 showcased the recent advancements of membrane research, development and applications related to water production and desalination, wastewater treatment and reclamation, gas and liquid separations and purifications, energy issues, the environment and other unique separation challenges and needs. Noteworthy, the plenary speakers include,



Jeffrey McCutcheon,
U Connecticut, USA



Yung Chang,
Chung Yuan Christian U,
Taiwan



Johannes Vrouwenvelder,
KAUST, SA



Ivo Vankelecom,
KU Leuven, Belgium



Kang Li,
Imperial College
London, UK



Michael Guiver,
Tianjin U, China



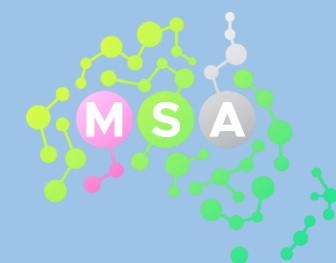
Travel award photo (left to right): Syed Muztuza Ali, Sara Abdi Kheibari, Jingyuan Fei, Tony Fane, Hans Coster, Shaomin Liu, Hokyong Shon.

MSA is very proud to support several Travel Awards to a number of international and domestic PhD students and ECR members to present their research work at the MST2019, and enabled them with networking opportunities and career development workshops.

- Syed Muztuza Ali**, University of Technology Sydney
- Sara Abdi Kheibari**, Deaking University
- Jingyuan Fei**, The University of Sydney

In this Newsletter issue, we asked the awardees what they have gained most out of this award and the MST2019 conference.

MSA Travel Awardee Reflections I



Q1. Tell us a little bit about your background. How did you get started in membrane research?

I had been working on seawater desalination by employing low grade waste thermal energy since 2013 using adsorption desalination processes. However, as the energy consumptions of thermal desalination techniques are too high and the coefficient of performance of the adsorption desalination is very low, I decided to pursue my PhD research on membrane based seawater desalination and wastewater treatment.

Q2. What does receiving the MSA Travel Award mean to you? How did you hear about the award?

First of all, receiving the competitive MSA travel award was an achievement to me. Moreover, the award supported the conference registration fee and airfare without which attending this conference would have been very difficult for me. Since, I am a member of MSA I have received the email invitation from the secretary of MSA to apply for this award.

Q3. If any, what are the outcomes or opportunities that further arose from your travel activities? How has the MSA Travel Award helped you advance your work or career?

This travel (MST 2019 conference) sponsored by the MSA travel funding program significantly contributed to update my knowledge on most recent membrane researches as well as to grow my professional networks. Particularly, these will help to build my future career on promising fields of research such as Bioinspired Zwitterionic Membrane and 3D printed membrane fabrication. Furthermore, this travel award offered me the opportunity to meet some prominent researches from leading universities and industries like Aquaporine Asia Pte. Ltd., Singapore, Kurita R&D Asia, Singapore, Suntar Environmental Technology Co., Ltd, China etc.

Q4. What would you tell someone who's thinking, but not sure yet, of applying for the award this year?

I highly recommend to apply as it provides great opportunities to learn about exciting new research and to expand professional network.

Q5. Why is it important to you that there is a strong MSA community of HDR/ECR in membrane?

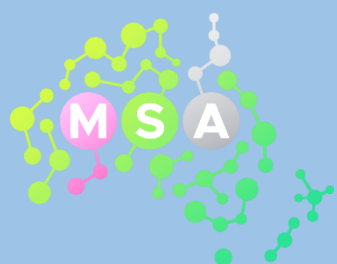
Sharing knowledge and resources are very important to improve the quality of research. Therefore, I reckon a strong MSA community provides the HDR/ECR a platform to showcase their research outputs and to attain feedback from the fellow researchers.



Syed Muztuza Ali, PhD candidate
University of Technology Sydney
Supervisor: Prof. Hokyong Shon



Receiving the Award Certificate
via Prof. Shaomin Liu



Sara Abdi Kheibari, PhD candidate
Deakin University
Supervisor: Prof. Bas Baskaran

MSA Travel Awardee Reflections II

Q1. Tell us a little bit about your background. How did you get started in membrane research?

I decided to pursue my postgraduate studies in Environmental Engineering-Membrane Technology for Water Treatment. The focus of my PhD research has been on the effective removal of natural organic matter from drinking water resources, and I have been able to promote the sustainability of the treatment process and enhancing its compliance with increasingly stringent regulations on drinking water quality.

Q2. What does receiving the MSA Travel Award mean to you? How did you hear about the award?

I believe that it is truly encouraging that MSA, as a leader in membrane science and technology, is promoting the visibility of HDRs and ECRs in prominent national and international conferences by providing generous travel awards. Dr Ludovic Dumeé kindly advised me of the availability of a travel award. The application process was facile and straightforward.

Q3. If any, what are the outcomes or opportunities that further arose from your travel activities? How has the MSA Travel Award helped you advance your work or career?

The MSA travel award was a great aid in managing the costs associated with my travel to attend the MST2019 conference. I believe attending conferences will enable me to enhance my engineering and technical knowledge on the up-to-date theoretical and applied research, and technological and industrial developments in the field of membrane science and technology. I can have the opportunity to meet the leading academic researchers and membranologists from around the globe will provide me with the chance to expand my network and seek post-graduation research opportunities.

Q4. What would you tell someone who's thinking, but not sure yet, of applying for the award this year?

I would definitely encourage them to apply for the award not only to have the chance of being provided with a generous financial assistance, but also to present themselves and their research to the MSA committee.

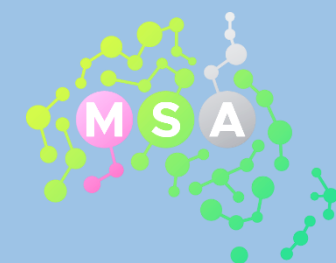
Q5. Why is it important to you that there is a strong MSA community of HDR/ECR in membrane?

I think having a strong community of HDR/ECR in membrane science is important and worthwhile since we can be linked and collaborate through this community, and get to know each other and the research that is conducted in different universities and research groups across the country. Eventually, like many other scientific communities, a strong community of membranologists will help them to unite and stand as a research entity.



Receiving the Award Certificate
via Prof. Tony Fane

MSA Travel Awardee Reflections III



Q1. Tell us a little bit about your background. How did you get started in membrane research?

I finished my master by research degree early 2017 and I got a PhD scholarship from The University of Sydney around July 2017. During which I met Dr Qianhong She, who just joined in our school as a lecturer, and he told me a lot about membrane and its applications. I was interested about this field and decided to do my PhD under Dr She's supervision to start a new journey in membrane world. I was later transferred to A/Prof. Zongwen Liu in late 2018.

Q2. What does receiving the MSA Travel Award mean to you? How did you hear about the award?

To receive the MSA Travel Award is a great honour to me as a quite fresh PhD student and also it made me more confident in my future research career. As an MSA member I will receive the society emails and read each one carefully, and from which I heard about the award for MST 2019 conference.

Q3. If any, what are the outcomes or opportunities that further arose from your travel activities? How has the MSA Travel Award helped you advance your work or career?

Thanks to the MSA Travel Award, I could attend this conference. And during this conference, I attended all the plenary talks and their enthusiasm in membrane science really inspired me. They also generously shared their ideas which are quite instructive to young researchers including me in our continuing study.

Q4. What would you tell someone who's thinking, but not sure yet, of applying for the award this year?

I would tell people around me who's still thinking about it there's no such worry and need to hesitate to apply the award because it is really an honour and definitely worth a try.

Q5. Why is it important to you that there is a strong MSA community of HDR/ECR in membrane?

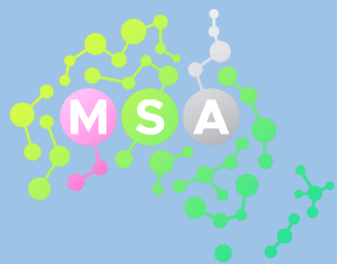
As an MSA member for 2 years, I feel really lucky to join our community and thanks to the generous staff works in MSA to send us emails and share so many important and valuable news, activities, awards, etc to us. Also, the ECR symposiums held every year are a good opportunity for us to make friends and share our ideas.



Jingyuan Fei, PhD candidate
The University of Sydney
Supervisor: A/Prof. Zongwen Liu



Receiving the Award Certificate
via Prof. Hans Coster



Taiwan – Australian Networking Event



中原大學



Prof. Ho Kyong Shon

University of Technology Sydney
President of MSA, co-chair of TANE

Taiwan-Australia Networking Event (TANE) was initiated by members from the Taiwan Membrane Society and the Membrane Society of Australasia (MSA) since AMS11 in Brisbane. The purpose of the TANE is to bring the membranologists from Taiwan and Australia together through common research interests, and establish a platform for facilitating collaborative research training and exchanging ideas to further strengthen bilateral collaborations between the two countries.

The first TANE was held on 1st July 2019 in the R&D Centre for Membrane Technology, Chung Yuan Christian University, Taoyuan City, Taiwan. During TANE, the critical debates creating our membrane future with about 30 researchers from three countries Taiwan, Australia and the United States of America, took place in 12 oral presentations and 12 posters.

Divided into five sessions, the topics of this event include,

Gas Separation

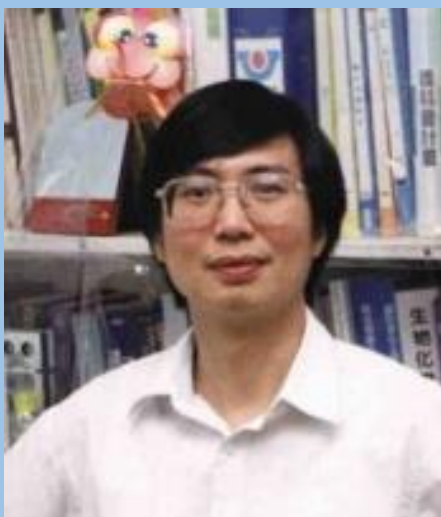
Materials & Green Energy

Regional membrane research activities

Water & Food

Healthcare

Exchange Gifts of Appreciation



Prof. Da-Ming Wang

National Taiwan University
President of TMS, co-chair of TANE

Two presidents exchanged gifts of appreciation for years of friendship and collaborative future in the years to come.



TANE dinner at exotic Chinese Restaurant

Taiwan – Australian Networking Event

Some highlights and activities:

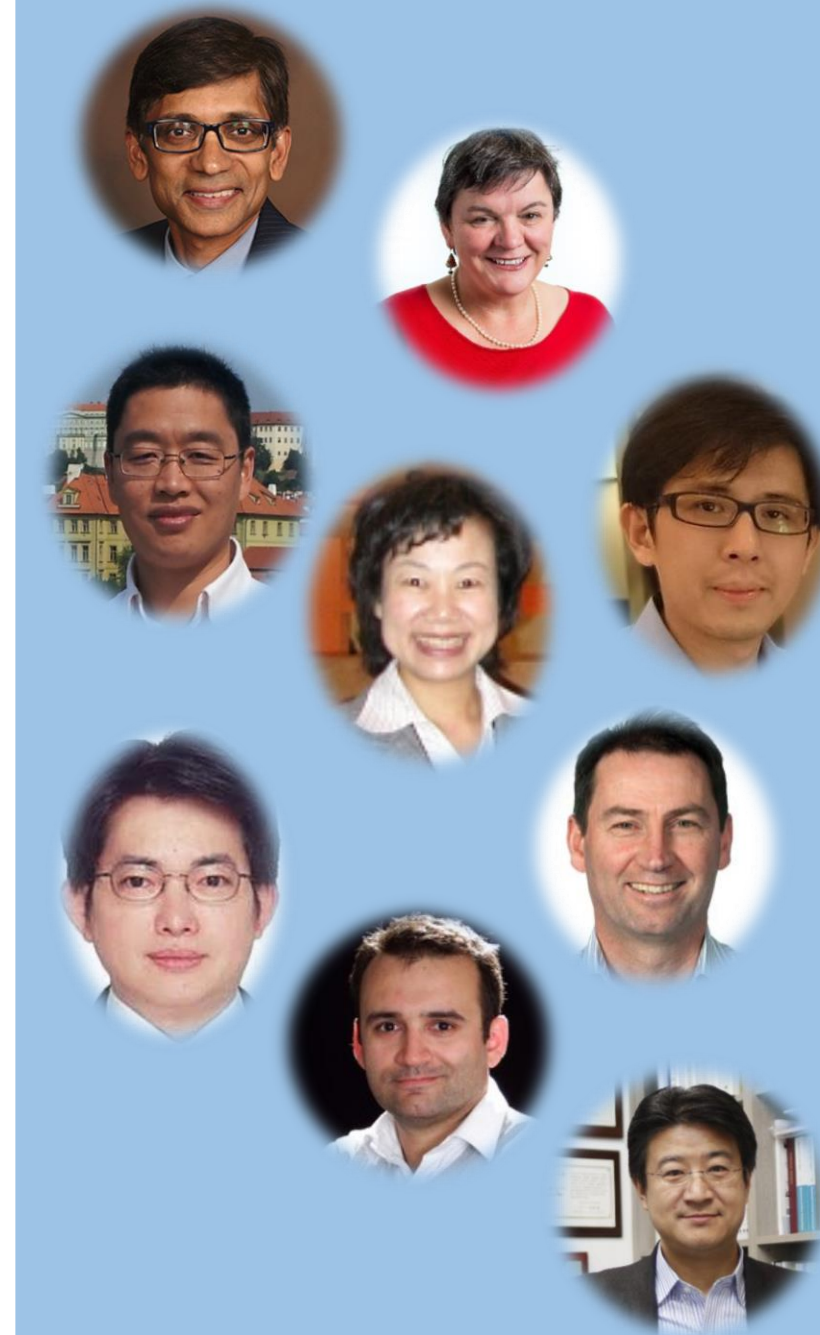
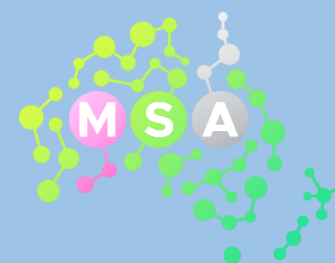
Key invited speakers included:

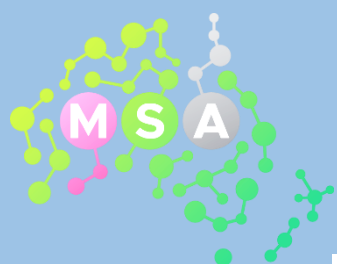
1. **Prof. Ho Kyong Shon** (Univ. of Technology Sydney, AU): “Research Activities of MSA and Resource Recovery using Membrane Technologies”.
2. **Prof. Ranil Wickramasinghe** (Univ. of Arkansas, USA): “Molecular Design of Polymeric Membranes for Organic Solvent Recovery”.
3. **Prof. Da-Ming Wang** (Nat’l Taiwan Univ., Taiwan): “Introduction to Membrane Researches and Applications in Taiwan”.
4. **Prof. Sandra Kentish** (Univ. of Melbourne, AU): “Gas Separation Research in Australia”.
5. **Assc/Prof Dun-Yen Kang** (Nat’l Taiwan Univ., Taiwan): “Membranes for Gas Separation in Taiwan: Opportunities and Researchers”.
6. **Prof. Xiwang Zhang** (Monash University, AU): “Novel Materials and Membrane for Energy-Efficient Separation”.
7. **Prof. Jessie Shingjiang Lue** (Chang Gung Univ., Taiwan): “Membranes for Clean Energy Application in Taiwan”.
8. **Prof. Stephan Gray** (Victoria Univ., AU): “Water and Foods: Australian Context and Recent Research Progress”.
9. **Prof. Kuo-Lun Tung** (Nat’l Taiwan Univ., Taiwan): “Researchers and Applications of Membrane-based Water and Wastewater Treatments in Taiwan”.
10. **Dr Ludovic Dumeé** (Deakin Univ., AU): “Membranes for Healthcare Applications—Challenges and Prospects”.
11. **Prof. Yung Chang** (Chung Yuan Christian University, Taiwan): “Impacts of Zwitterionic Membranes in Medical Applications”.

Cultural Exploration in Taiwan

During the IMCT-TANE attendance, our Australian delegates enjoyed exploring the Taiwanese food, culture and history. They bravely tasted the exotic Taiwanese foods in the famous Ximending night market. A few delegates visited the most prominent historical landmark in Taiwan: the Chiang Kai-Shek Memorial Hall, where they were fascinated by the pan-Chinese culture and the strong influence of President Chiang over the Taiwanese history, until present. The three musketeers (Mikel Duke, Ludovic Dumeé and Andrea Merenda) had an adventurous trip to the beautiful DaXi mountain. They unfortunately got lost and finally rescued by the friendly local policemen from the San-Min district. This was a major highlight of our Taiwan trip.

Goodbye friends from Taiwan! We would meet again shortly in the beautiful Jeju Island for the AMS12 conference!





Jonggeon Jegal

General Co-chair, AMS 12
Korea Research Institute of Chemical
Technology



Jin Yong Park

General Co-chair, AMS 12
Hallym University

AMS 12 Conference Highlights



The 12th conference of the Aseanian Membrane Society (AMS 12)
July 2-5, 2019 Ramada Plaza Jeju Hotel, Jeju, Korea

Aseanian Membrane Society (AMS) meeting is one of the most important conferences that bring our members together from around the world to share professional experiences, expand our professional networks, and receive updates on the latest advances in the field of membrane sciences and technology.

The AMS conferences are organized every year in rotation with the member countries, except during the years of the International Congress on Membranes and Membrane Processes (ICOM). Following the success of the 11th AMS conference in Australia in 2018, the conference venue of AMS12 was held at Jeju, a beautiful volcanic resort island in South Korea, which attracted over 670 delegates, reaching a new record high!

With six parallel sessions, the topics of this conference include,

Water and wastewater treatment (MF, UF, MBR)	Desalination (RO, NF, FO, CDI)	Solvent separation and dehydration (PV, VP, MD)	Gas separation
Energy conversion and storage	Biomedical and bioseparation	Resources recovery	Membrane reactors
Advanced membrane processes	Novel membranes and materials	Membrane characterization	

MSA Travel Awards

This year's AMS12 conference, MSA awarded 12 Travel Awards to 11 PhDs/1 ECRs to cover the cost of conference registration fees for them to attend the conference and present their research work. They are,

Awardee	Name	Affiliation	Country
HDR 1	Ali Naderi	National University of Singapore	Singapore
2	Andrea Merenda	Deakin University	Australia
3	Bosirul Huque	Univ of Melbourne	Australia
4	Marie ENFRIN	University of Surrey	UK
5	Feng Yingnan	NUS	Singapore
6	Guang Yang	Victoria University	Australia
7	Jingshi Yvonne Wang	Deakin University	Australia
8	Lavern Nyamutswa	Victoria University	Australia
9	Minwei Yao	UTS	Australia
10	Priyanka Kumari	Deakin University	Australia
11	Ralph Gonzales	UTS	Australia
ECR 12	Sung Il Lim	UTS	Australia

Also, congratulations to Ms Jingshi Wang, a final year PhD student from Deakin U, for winning the Best Poster Presentation Award for her work, "Homogeneity Studying of Plasma Polymerized Thin Films Using Synchrotron Irradiation-based Infrared Spectroscopy".



AMS12 Conference Highlights

Some highlights and activities:

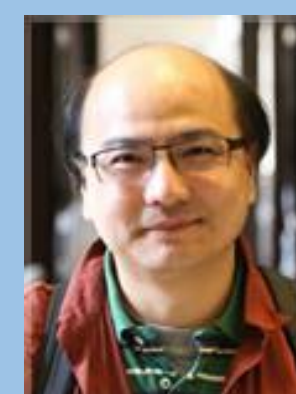
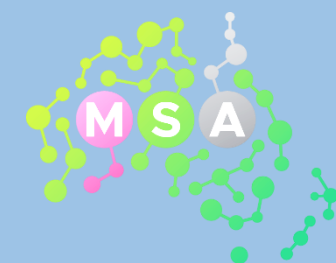
Plenary speakers included:

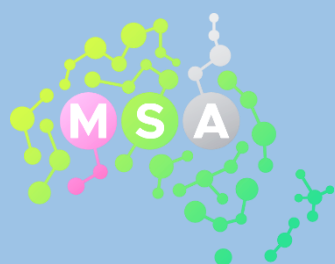
1. **Prof. Neal Tai-Shung Chung** (Nat'l Univ. of Singapore, Singapore): "Molecular Design of Polymeric Membranes for Organic Solvent Recovery".
2. **Prof. Xiwang Zhang** (Monash University, Australia): "Understanding Water and Ion Transport Inside Confined Channels of 2D Laminar Membranes".
3. **Prof. Zhongyi Jiang** (Tianjin University, China): "Bioinspired Membranes and Membrane Processes".
4. **Dr. Bibhash Chakravorty** (Genesis Membrane Sepratech Pvt. Ltd., Mumbai, India): "Membrane Based Hybrid Technology for the Efficient Production of Sugar from Cane".
5. **Prof. Abdul Wahab Mohammad** ((The Nat'l Univ. of Malaysia, Malaysia): "Applications of Membrane Technology for Palm Oil Industry: Issues and Challenges".
6. **Prof. Sang Yong Nam** (Gyeongsang Nat'l Univ, Korea): "Encountering Technology with Newly Designed Polymeric Membranes in Solving the Climate Change Problem".
7. **Prof. Ying-Ling Liu** (National Tsing Hua University, Taiwan): "Crosslinked Polymers/thermosetting Resins Based Membranes: Preparation and Application".
8. **Dr Hiroshi Nabetani** (National Food Research Institute, NARO, Japan): "Membrane Separation Technologies for Food Industries".

Conference Dinner

The conference dinner was held at the Ramada Hotel to officially close the conference in style with guest performances from NANTA Kitchen Show, and a coaxed "marriage ceremony" between two prominent leaders, Prof Stephen Gray (left) and Prof Rong Wang (right), who shared their professional charm and delectable tastebuds on the stage with over 600 dinner guests. This was a major conference highlight in the history of membranology.

Prof Rong Wang also announced that Singapore Membrane Society will host the next AMS conference (AMS13) in two years time in 2021, and promised to showcase her "best on-stage performance", which is yet to come!





Dr Leonard Tijing

Senior Lecturer

School of Civil and Environmental

Engineering

Faculty of Engineering and IT

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Sydney,

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E: leonard.tijing@uts.edu.au

MSA Funding Support Programs

MSA Workshop Funding Support

This program provides funding support to membrane-related events such as workshop and symposia that are held in Australasia.

Who can apply for the MSA workshop support program?

All MSA members can apply for funding support from the MSA.

Funding use – What the MSA workshop funding support program is for?

Financial support is provided for activities and projects that are beneficial to membrane technology in Australasia. This includes a range of activities, such as:

- Sharing of knowledge on one particular topic related to membrane technology in the laboratory, pilot or full scale level,
- Dissemination of results/outcomes at the end of a project and highlight future trends,
- Promoting new activities.

Funding support is available to help out with:

- Administrative activities (e.g., venue, materials),
- Catering (e.g., cost of lunch, coffee),
- Sponsoring speakers (e.g. travel and accommodation expenses),
- Awards,
- Free or discount registration fees for ECR.

A maximum of \$2,000 per event will be allocated.

How to apply?

The application form ([click to download](#)) must be submitted to the MSA Workshop Committee at least 3 months before the date of the event with the subject “MSA Workshop funding application”. Please advise the MSA as soon as possible of any planned event so that we can consider it for budgeting. The chances of success are likely to be improved by an early application. The outcome of the application will be announced approximately 1 month after the submission of the application.

Conditions

To qualify for this funding program, your group has to meet the following terms and conditions:

Matched funding – your application must include at least an equal monetary or in-kind contribution from you or your project partners;

Registration fees – the event should provide free or more than \$50 discount registration fees for MSA members;

Reporting – write a short article on the event for publication in the MSA newsletter, highlighting relevant points of interest to MSA members (this is a requirement before reimbursement is given);

Acknowledgment – the MSA (including the logo) must be acknowledged for providing financial support in all printed media (programs, flyers, cover slides, websites, etc.) and presentation materials.

Contact us

If you would like further information on the MSA funding program, contact

Funding program coordinator: Dr Leonard Tijing (funding@membrane-australasia.org or Leonard.Tijing@uts.edu.au).

MSA Funding Support Programs

MSA Travel Award Program

In order to assist MSA members (students and early career researchers (ECRs)) attend iEESEP, MEMDES, MSA ECR symposium, and IMSTEC2020, MSA will sponsor travel awards to support their conference registration costs or to partially cover their conference expenses. Subject to the approval of the MSA executives, MSA executive will directly pay the registration costs of the award recipients to the organizing committee. The award winners will be announced during the conference closing ceremony and published in our newsletter post-conference.

(ECRs here are defined as those researchers within 5 years post-PhD graduation)

Eligibility

- Must be a current member (HDR student or ECR) of the MSA.
- Must have their abstract accepted and be the presenting author of an oral or poster presentation at the conference.
- Must not have previously won a travel grant from MSA during the calendar year.

Selection Criteria

Applicants will be selected by a panel of judges according to their track record relative to opportunity, the quality of abstract and significance of research, justification of eligibility and the need for financial assistance.

Travel Funding use – What the MSA grant support program is for?

This travel award is provided specifically for the sponsorship of the above mentioned conference registration or conference expenses.

How to apply?

Call for application will be made through the general MSA email list. Please stay in touch with the MSA to receive all the relevant updates for these Travel Awards. The application form must be submitted via email to the MSA Travel Funding Committee (funding@membrane-australasia.org) with the subject line: “[conference name] travel award application” at the announced deadline. The outcome of the application will be announced within 6 weeks after the deadline.

Conditions

To qualify for this travel funding program, the awardee has to meet the following terms and conditions:

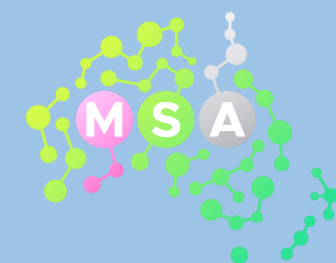
Reporting – write a short article as a contribution to the MSA Newsletter, highlighting relevant points of interest to MSA members (can be about the conference or other member-related topics);

Acknowledgment – the MSA (including the logo) must be acknowledged for providing financial support in the presentation materials.

Contact us

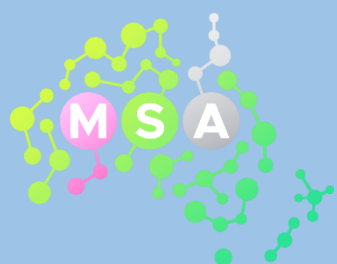
If you would like further information on the MSA travel funding program, contact Travel funding program coordinator:

Dr Leonard Tijing (funding@membrane-australasia.org or Leonard.Tijing@uts.edu.au)



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New MSA Funding Initiative I

New MSA initiative: The Tony Fane Award

Tony Fane Award Scheme

The Membrane Society of Australasia (MSA) seeks to recognize individuals who have made outstanding and distinguished contribution to the advancement of membrane science and technology in Australasia through the Tony Fane Award. Nominations for this award will be assessed by an assessment panel appointed by the MSA Board. The nominee need not be a member of MSA to be eligible but it requires independent nomination. The panel will base their assessment on the track record of the nominee, the strength of claims and evidence provided to support the claims, and the long term contribution and the difference made by the nominee to the membrane field and community in Australasia. After the panel has deliberated and selected the award winner, they will forward the decision to the MSA Board for final confirmation. Awarding of the Tony Fane Award will be given during the gala night of an MSA-sponsored major conference (such as the International Membrane Science and Technology (IMSTEC) conference). The panel and the board reserve the right not to award any nominees in the respective year if no one meets the expected quality and calibre for an awardee.

The Tony Fane Award winner will receive a plaque of recognition and inclusion in the Tony Fane Award gold tablet list of distinguished membranologists.

Eligibility and how to nominate

Only MSA member can nominate an individual for the Tony Fane Award. The nominee need not be an MSA member to be eligible. Current MSA board members and those involve in the assessment panel are not eligible to nominate and be nominated for the award. Any board member who may have conflict of interest with the nominated individual should not be part of the assessment panel.

The nominator should submit a completed nomination form and supporting documents:

- Complete details of the nominee and the nominator
- A synopsis (max 500 words) of why the nominee is deserving of the Tony Fane Award – describe and demonstrate the nominee's distinguished contribution to the membrane field and community, and how the nominee has made a difference
- Any documents to support the claims including short biography (100 words) and CV of the nominee

When and how to submit the nomination

Completed nomination form (Word or PDF) should be emailed to the Tony Fane Award panel to (funding@membrane-australasia.org) on or before the announced due date. Late and/or incomplete submissions will not be accepted by the panel. **Open submissions and further details (including nomination form) for this award will be communicated to all MSA members sometime in 2019. Nominations are still close at this time.**

Notification of award winner

The Tony Fane Award winner will be notified by the MSA Board a few months before IMSTEC conference. The award will be presented during the gala night of an MSA-sponsored major conference unless advised otherwise. The winner will also be highlighted on the MSA Newsletter, websites, and related social media sites.

New MSA Funding Initiative II

Distinguished Lecture Scholar

This program provides funding support to the visit of international **Distinguished Lecture Scholar** in membrane-related fields to Australasia.

Who can apply for the MSA Distinguished Lecture Scholar funding support program?

All MSA members can apply for the funding support from the MSA.

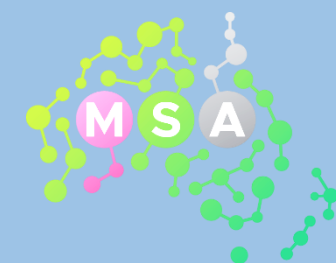
Funding use – What the MSA Distinguished Lecture Scholar funding support program is for?

Financial support is provided for visiting activities that are beneficial to membrane community in Australasia. This includes a range of activities, such as (1) sharing of knowledge on one particular topic related to membrane technology in the laboratory, pilot or full scale level, and (2) scientific lectures/seminars.

Funding support is available to help out with:

- Catering (e.g., cost of lunch, coffee),
- Travel and accommodation expenses,

A maximum of \$5,000 per scholar will be allocated.



Prof. Xiwang Zhang

Director of ARC EESep Hub
Department of Chemical Engineering
MONASH UNIVERSITY
Room 213, Building 36,
Clayton Campus, Clayton Vic 3800
Australia
T: +61 3 9905 1867

How to apply?

The application form must be submitted to the MSA at least 2 months before the date of the visit. Please advise the MSA as soon as possible of any planned visit so that we can consider it for budgeting. The chances of success are likely to be improved by an early application. The outcome of the application will be announced approximately 1 month after the submission of the application.

Conditions

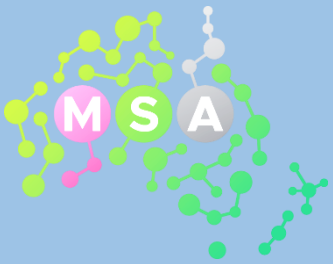
To qualify for this funding program, your application has to meet the following terms and conditions:

- Matched funding – your application must include at least an equal monetary contribution from other sources to support the visit;
- The scholar must be an outstanding, world-renown expert in membrane-related fields;
- The scholar must give ≥ 2 scientific seminars in different universities;
- Reporting – write a short article on the event for publication in the MSA newsletter, highlighting relevant points of interest to MSA members;
- Acknowledgment – the MSA (including the logo) must be acknowledged for providing financial support in all printed media (programs, flyers, cover slides, websites, etc.) and presentation materials.

Contact us

If you would like further information on the MSA funding program, contact

The coordinator of the **Distinguished Lecture Scholar** funding support program: Professor Xiwang Zhang (support@membrane-australasia.org or xiwang.zhang@monash.edu).



MSA Communication Forum



Dr Andrea Merenda

MSA Secretary

Associate Research Fellow

DEAKIN UNIVERSITY

75 Pigdons Road, Waurm Ponds, VIC,

3216, AUSTRALIA

amerend@deakin.edu.au

secretary@membrane-australasia.org



Dr Stefan Smith

MSA Webmaster

Research Fellow, CSIRO

CSIRO Materials Science and Engineering

Locked Bag 10

Clayton South MDC, VIC 3169

Australia

Stefan.Smith@csiro.au

webmaster@membrane-australasia.org



One of the MSA objectives arising from our strategic meeting in 2018 is to ensure our members stay up-to-date of the membrane-related development, events and news by enhancing our communications with our members and the community.

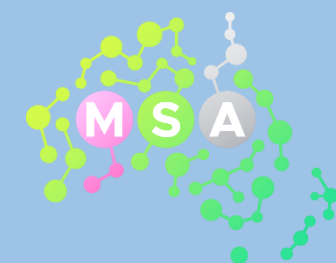
Given the very nature of the way we use social media – often through mobile applications and online chat rooms, we want to improve ways of interacting and communicating news with our members more quickly and effectively.

This year, we are now rolling out a suite of forums and dissemination media such as e-Updates (via MailChimp), Twitter, Facebook and LinkedIn online platforms to readily and easily share news with the MSA community.

We will keep a close eye on the effectiveness and efficacy of these communication platforms, and more importantly, we will regularly monitor the levels of engagement of our members to further offer a communication system that is purposeful and sustainable.



Quarterly Newsletter



Every quarter, MSA Newsletter publishes important pieces of news, events and research highlights related to membranes and membrane technologies. You are encouraged to get in touch with the Newsletter Editor, David Wang, to contribute a piece of news-worthy article or two from an area of your work, research or group. To facilitate this process, we have formed a team of Newsletter Taskforce based on Board nominations and their relevance to membrane field. Please welcome them to the MSA family during news gathering time by offering your kind assistance.

Should you wish to nominate someone in your state / in your research group for the Taskforce, please get in touch with the Newsletter Editor.



Dr David Wang

Lecturer

School of Chemical and Biomolecular Engineering

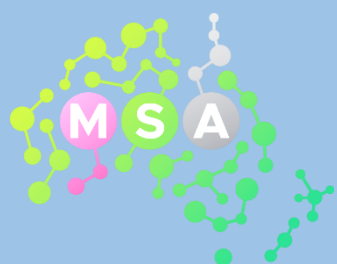
THE UNIVERSITY OF SYDNEY NSW 2006

T +61 2 9351 3832

E: david.wang1@sydney.edu.au

<http://sydney.edu.au/engineering/people/david.wang1.php>

Taskforce Member / Project	Supervisors	Uni.
NSW		
Mr Gholamreza Vahedi Sarrigani <i>Interfacial Diffusion Membrane Using Novel Nanoconfined Polymer Crystallization for Natural Gas Processing</i> – 2 nd year PhD	Dr David Wang Prof Dianne Wiley	USYD
QLD		
Miss Nur Hafizah Ab Hamid <i>Forward Osmosis (FO) Membrane-based Technology in Urban Wastewater Treatment</i> – 3 rd year PhD	Dr Liu Ye Dr Simon Smart Dr David Wang	UQ
VIC		
Dr Ze Xian Low <i>From membrane material synthesis to fabrication and function (SynFabFun)</i> – 3 rd year Postdoc	Prof Xiwang Zhang	MonashU
Mr Riyadh Al-Attabi <i>Functional Electrospun Nanofibers Membranes for Nanomaterials Filtration</i> – 3 rd year PhD	Prof Yosry Morsi Dr Ludo Dumée	DeakinU



Dr Zongli Xie

Membership Coordinator
Team Leader - Catalysis & Materials
Discovery
CSIRO Manufacturing
Locked Bag 10
Clayton South MDC, VIC 3169
Australia
Contact details: +61 3 9545 2938
E: Zongli.Xie@csiro.au

Ordinary Membership

In 2009, the MSA was founded with the goal bringing together key academics, industrial professionals, and emerging membranologists to further membrane science and technology within Australasia. Becoming an MSA member means connecting with a whole community of people who are dedicated to the same important goal. The MSA is launching a campaign to renew the membership program by providing more benefits to its current and future members. It is a great pleasure for me to introduce the membership with newly rolled out benefits:

All paid Members have the right to:

- attend and to speak at general meetings;
- nominate, to be nominated and to be appointed a Director; and
- vote at general meetings and on resolutions put to the membership.

Customised MSA Website and Social Media Alerts

Visit our new web home, the upgraded MSA website with more options and tools. Receive up-to-date information on domestic and international research, upcoming conferences, commercial new products via MSA website and email-alert targeted for Academic members. Follow the MSA on the most well-established social networks, i.e. [Twitter](#), [Facebook](#) and [LinkedIn](#).

MSA e-Update

Do not miss out on the most important membrane-related headline news. The MSA is launching a brand-new weekly e-Update, containing membrane news, recent publications, job opportunities and funding information. Our staff will collect the most important news for you, just one click away.

Discounted rates at MSA or MSA sponsored conferences

From membrane science and technology basics to recent advances and breakthrough outcomes. The MSA promotes during the year seminars, workshops and conferences encompassing a wide range of membrane topics. Discounted fees and the possibility of joining via webinar will be offered to all the MSA members.

All these plus all the usual benefits:

Vast membrane society networks

Networking platforms with other MSA members and industry partners along the MSA-sponsored events.

Exclusive member awards, benefits and savings

Apply for travel awards and scholarships to attend international conferences and visit fellow academic partners worldwide.

Corporate Membership

Since 2011, MSA has received strong support from our corporate members including Veolia, Evoqua, CSIRO, Memphasys and Kaimitech, OriginWater, UNSW, Monash University, Massey University. The benefits and MSA-sponsored features for Corporate Members include:

Included multiple individual memberships

The corporate membership will include up to 5 individuals from your company annually, the membership is interchangeable in case of employment change or under similar circumstances.

Corporate corner

Joining other membrane elites in Australia and overseas, you will gain higher exposure rates as your company is featured in MSA website's Corporate directory.

Customised MSA Website and Email Alerts

Stay in the front line of membrane world as you will receive up-to-date information on research, international news, commercial new products via MSA website and email-alert targeted only for Corporate members.

MSA e-Update

Advertise new product information and new job opportunities via the MSA's weekly e-Update, containing membrane news, recent publications, job opportunities and funding information etc.

Discounted rates at MSA or MSA sponsored conferences

Now and then, MSA hold or sponsors seminars, workshops and conferences in a wide range of membrane topics and at various venues, corporate members will be eligible to enjoy reduced (and sometimes FREE) conference registration rates. Also, opportunities to set up company promotional booth in conferences may also be available, subject to applications and in the sole discretion of MSA committees.

All these plus all the usual perks:

Vast membrane society networks

Be able to link and cross network with other membrane companies and individual professionals in MSA member community in Australia and internationally.

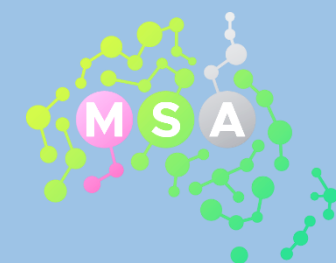
Exclusive member awards, benefits and savings

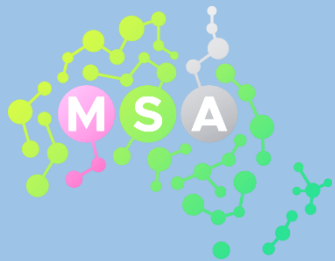
Access to application of travel awards, scholarships etc.

We encourage you and your team to visit our website and membership program and get in touch with our Membership Coordinator, Dr Zongli Xie (E: Zongli.Xie@csiro.au) to discuss the membership details:

<https://membrane-australasia.org/>

<https://membrane-australasia.org/product/membership/>





ECR Membrane Symposium 2020 is Australia's premier symposium for membrane scientists and engineers in the early stages of their career. Organised by the Membrane Society of Australasia, the **7th MSA ECR symposium** will be held from 31 January – 1 February 2020 at University of Technology Sydney.

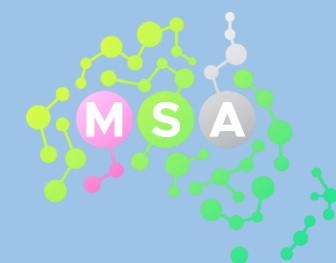
The purpose of the symposium is to offer a platform for exchanging ideas and thoughts whilst developing career and scientific communication skills. The symposium will bring together both students and young professionals in membrane science and technology from Australasia. Further information can will be released by the organising committee on the MSA website.



An exciting upcoming event is the **10th International Membrane Science & Technology Conference (IMSTEC2020)** organised by MSA will be held from 2 to 6 February 2020 at the University of Technology Sydney, Sydney, New South Wales.

The International Membrane Science & Technology Conference is attended by industry and academic leaders and focuses on advances in all areas of membrane science and technology, with particular attention on water treatment, food processing, energy production and material characterisation. The IMSTEC conference program will include formal presentations and poster sessions of its scientific program as well as keynote presentations from leaders from academic and industry. The conference will also include a number of industry relevant workshops and tours of local sites featuring membrane operations. Do not miss out on the official call for abstracts and the abstract submission will be available shortly. In addition, the IMSTEC2020 Organising Committee will release the list of Plenary Speakers, including renowned membrane experts and researchers across four different continents on Monday, 1 April on the MSA website as well as on www.imstec2020.com. Stay in touch with the MSA to receive all the relevant updates on IMSTEC2020. For more information, please visit contact secretary@imstec2020.com.

New Zealand Water Symposium



In November this year, MSA is sponsoring the first **New Zealand Symposium** to discuss the membrane technology challenges in the Water and Energy Sustainability nexus. Chaired and organised by Dr Filicia Wicaksana and Dr Saeid Baroutian from The University of Auckland, it promises to be an exciting event with the opportunity to make new friends and catch up with old friends to expand your professional networks, and the registration is waived for all the MSA members!



SAVE THE DATE

11 NOVEMBER 2019

WATER SYMPOSIUM

THE UNIVERSITY OF AUCKLAND,
NEW ZEALAND

Membrane and Advanced Techniques for Water and Energy Sustainability

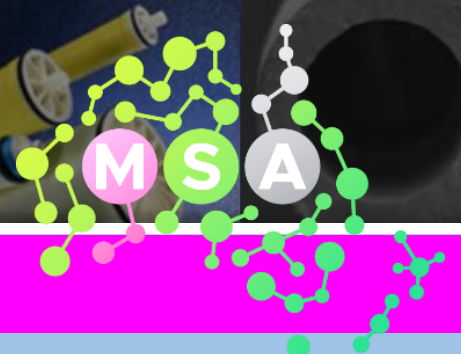
Keynote speakers:
Professor Anthony G. (Tony) Fane - UNSW
Professor Krist V. Gernaey - Technical University of Denmark

FREE REGISTRATION-MORE DETAILS COMING SOON

Organised by: Department of Chemical and Materials Engineering, the University of Auckland
Supported by: the Membrane Society of Australasia

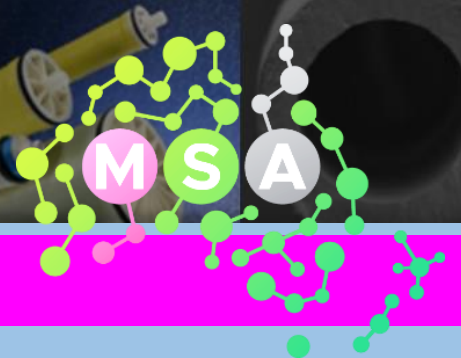
Please contact the event coordinator, Dr Filicia Wicaksana (f.wicaksana@auckland.ac.nz) to discuss the event details. More information will be provided via our MSA Events website:

<https://membrane-australasia.org/events/>



2019/2020 Key Membrane Events

CURRENT EVENT	2019 DATE	ABSTRACT DEADLINE
Small Molecule Control of Membrane Biofouling University of Arizona, USA aquamem.com/special_pages/SMCMB/index.html	31 Mar – 3 Apr	Expired
Engineering with Membranes – EWM 2019 Båstad, Sweden ewm2019.eu	8 – 10 Apr	Expired
14 th International Conference on Membrane Science & Technology Nanyang Technological University, Singapore memsis.org/mst2019	7 – 9 May	Expired
28 th North American Membrane Society Annual Meeting Pittsburgh, USA nams2019.org	11 – 15 May	Expired
12 th Conference of Aseanian Membrane Society Jeju, Korea www.ams12.org	13 – 14 Jun	Expired
New Zealand Water Symposium University of Auckland, New Zealand Contact Dr Filicia Wicaksana (f.wicaksana@auckland.ac.nz)	11 Nov	TBA
2 nd International Conference on Energy-Efficient Separation Melbourne, Australia www.arc-eesep.org/ieesep2019	27 – 30 Nov	15 Aug
4 th International Conference on Desalination using Membrane Technology Perth, Australia www.elsevier.com/events/conferences/desalination-using-membrane	1 – 4 Dec	Expired
	2020 DATE	ABSTRACT DEADLINE
10 th International Membrane Science & Technology Conference University of Technology Sydney, Australia www.imstec2020.com	2 – 6 Feb	15 Aug 2019
29 th North American Membrane Society Annual Meeting Tempe, Arizona nams2020.org (under construction)	16 – 20 May	TBA
16 th International Conference on Inorganic Membranes Taipei, Taiwan www.icim2020.org	29 Jun – 2 Jul	31 Oct 2019
International Congress on Membranes & Membrane Processes 2020 London, UK www.icom2020.co.uk	12 – 17 Jul	24 Jan 2020



Membrane Innovation: Water solutions without a grain of salt

Led by Professor Xiwang Zhang from Monash University's Department of Chemical Engineering, researchers have developed energy-passive technology that's able to deliver clean, potable water to thousands of communities, simply by using photothermal materials and the power of the sun. The robust solar steam generation system can achieve efficient and continuous clean water production from salty water with almost 100 per cent salt removal. Through precisely controlling salt crystallisation only at the edge of the evaporation disc, this novel design also can harvest the salts.



The feasibility and durability of the design have been validated using seawater from Lacedpede Bay in South Australia. This technology is a promising solution to water shortages in regional areas where grid electricity isn't available.

"Our study results advance one step further towards the practical application of solar steam generation technology, demonstrating great potential in seawater desalination, resource recovery from wastewater, and zero liquid discharge," Professor Zhang said.

"We hope this research can be the starting point for further research in energy-passive ways of providing clean and safe water to millions of people, illuminating environmental impact of waste and recovering resource from waste."

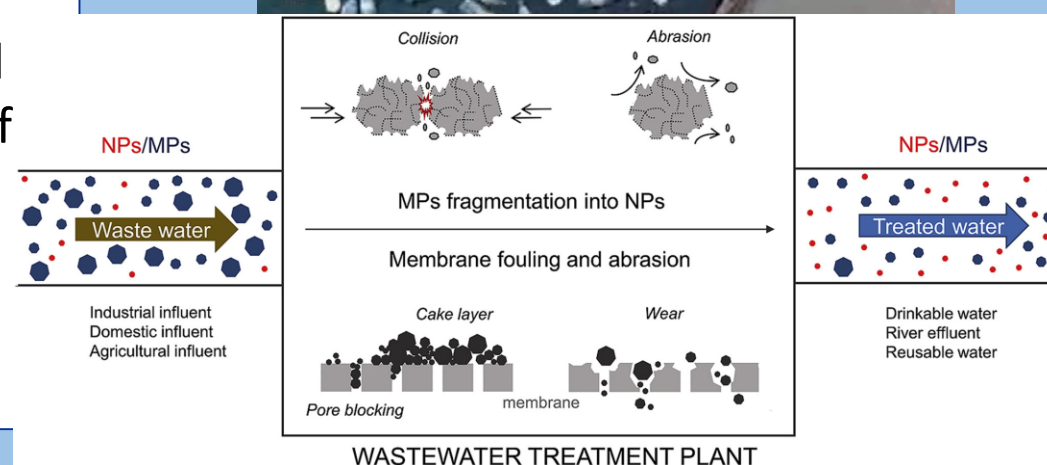
Professor Zhang is the Director of the [ARC Research Hub for Energy-efficient Separation](#) (EESep), which aims to develop advanced separation materials, innovative products and smart processes to reduce the energy consumption of separation processes that underpin Australian industry.

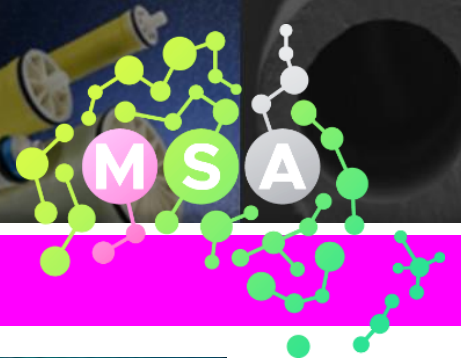
The findings were published in the international journal *Energy & Environmental Science* and may be downloaded at: <http://doi.org/10.1039/C9EE00692C> or viewed in The Australian news article, "Efficient process worth its salt" via <https://www.theaustralian.com.au>.

New paper in Water Research: Micro-plastics – impact on waste water treatment

Ms. Marie Enfrin, joined Deakin University – Surrey University PhD student (Supervisors, Dr. Ludo DUMEE and Dr. Judy LEE), published a review article in *Water Research* on the impact of microplastics on wastewater treatment systems, "Nano/microplastics in water and wastewater treatment processes – Origin, impact and potential solutions". The review develops current challenges and discusses solutions for supporting the recovery and treatment of nano and micro plastic rich effluents.

The manuscript may be downloaded at:
<https://doi.org/10.1016/j.watres.2019.06.049>





The [Monash Centre for Membrane Innovation \(MCMI\)](#) brings together world-leading expertise across to make transformative breakthroughs in membrane science, engineering, technology transfer, and innovation.



MONASH
MEMBRANE
INNOVATION



In the last five years, Monash researchers have worked with 30+ industry partners, raised \$30+ million and published over 130 papers. Building on this success, MCMI seeks to become a global hub for separations science, and will establish an advanced research facility at Monash for research in: **i)** developing novel nanostructured membrane materials; **ii)** applying membranes to replace conventional processes; **iii)** designing optimised membrane processes; **iv)** developing advanced models for predicting membrane performance in real conditions; and **v)** manufacturing prototype membrane modules for pilot scale testing. Together, MCMI will develop breakthroughs in membrane technologies to seed new start-ups companies and drive the Australian membrane industry forward.

Prof Huanting Wang Director
Prof Xiwang Zhang Deputy Director
A/Prof Matthew Hill Deputy Director
Dr Stefan Smith Centre Manager
Prof Mark Banaszak Holl
A/Prof David McCarthy
Prof Mainak Majumder
Dr Parama Banerjee
A/Prof Victor Chang
Prof Louise Bennett
Dr Huacheng Zhang
Prof George Simon
A/Prof Kei Saito

Why Membrane Technology?

Membrane technologies are well known for purifying water, but also have a much broader potential in the separations industries. Replacing inefficient processes with energy-efficient membranes could improve sustainable practices across the food, clean energy, dairy, pharmaceutical, and petrochemical industrial sectors.

For more information, please contact: Stefan.Smith@monash.edu

monash.edu/mcmi



Review of 2018-19 MSA Strategic Plans

In September 2018 the MSA Board and honorary members undertook a strategic retreat at the University of Technology Sydney to reflect on the successful highlights and forge discussions on the future direction of the MSA. The strategic planning event received input from the Board and a wider range of our members and identified five priorities for the organisation in 2018–2019 as below:

2018-19 MSA Strategies



Marketing

- Expand social media to LinkedIn, Twitter, Facebook, Link to other industry groups (ACS), Newsletter, Email, e-update



International Engagement

- Make a successful networking collaboration with AMS and WA-MS countries



Regional Engagement

- Workshop - ≥ 1 non-regular states/year. Not NSW or VIC.



Industry Engagement

- Grow Industry Members – 27 (6)
- Industry Focused Event/s ≥ 1 /year
- Industry session at MSA conferences



Membership

- Grow Industry Members
- Grow under-represented regions (NZ, WA, other Uni's)
- Improve conversion rate (enrol more students from existing member)



The five strategies including i) Expanding our membership, ii) Encouraging and supporting industry involvement, iii) Engaging more with under-represented regions and cities, iv) Improving the organisations communication and social media presence, and v) Enhancing international engagement have been successfully delivered in this year 2018-19 of the MSA.

As one of the results, the MSA has been working to improve our communications with our members and the membrane community through this Newsletter as well as weekly e-Updates, and Twitter, Facebook and LinkedIn news. If you have any membrane technology related news you would like to share with the MSA community, please be sure to post to any of our social media platforms. Besides, many travel awards have been provided to students and ECRs and regional and international networking events have been organised. In addition, the MSA Distinguished Lectureship series welcomed Prof. Robert W. Field from the University of Oxford.

The next strategic meeting will be held in Melbourne on 26 October 2019. Please contact us if you would like to join the meeting. Along with the Board of the MSA, we are looking forward to supporting and improving the MSA priorities for 2019-20.

The MSA Board

THANK YOU



BOARD DIRECTORS



Hokyong Shon



Geoffrey Johnston-Hall



Stefan Smith



Ludovic Dumée



Xiwang Zhang



David Wang



Leonard Tijing



Filicia Wicaksana



Zongli Xie



Andrea Merenda

Board Members

President – Hokyong Shon, UTS

Vice President – Geoffrey Johnston-Hall, Evoqua Water Technologies

Secretary – Andrea Merenda, DeakinU

Treasurer – Ludovic Dumee, DeakinU

Newsletter Ed – David Wang, USYD

Webmaster – Stefan Smith, CSIRO

Travel Awards Coord – Leonard Tijing, UTS

Industry Engagement – Xiwang Zhang, MonashU

Membership Coord – Zongli Xie, CSIRO

NZ Engagement – Filicia Wicaksana, UAuckland