

Annex - Profiles of SSS recipients and in-service scholars

PUB, Singapore's National Water Agency (6 recipients)

S/N	Name and age	Course and University	Profile
1	Koi Zhi Yuan Melissa (Melissa Koi) Age: 20	Bachelor of Engineering in Environmental Engineering with a Second Major in Sustainability Nanyang Technological University, Singapore	<p>Melissa's interest in environmental engineering is fuelled by her passion towards environmental conservation from a young age. Instead of taking the Junior College route, she chose to pursue a Diploma in Environment and Water Technology at Ngee Ann Polytechnic, driven by her fascination with the intricate connections between human activities and nature. Recognised for her outstanding academic performance and leadership potential, she was awarded the PUB diploma scholarship from 2021 to 2023. During this period, she led the Green Volunteers Club at Ngee Ann Polytechnic as the Chairperson to organise events that raise environmental awareness in Singapore. She also had the opportunity to do a six-month internship with the Water Quality Department at PUB where she deepened her knowledge and interest in water management and technology.</p> <p>Motivated by her extensive reading on the impact of climate change and Singapore's vulnerability to rising sea levels, Melissa aspires to contribute to coastal protection and sustainability upon graduation, focusing on preserving coastal ecosystems, preventing flooding and ensuring water quality. She recently joined the NUS-BECC (Built Environment Case Competition) on coastal protection where she learned about artificial reefs and what other countries are doing to tackle sea level rise. Her team proposed building resort homes that double as coastal protection infrastructure in the currently publicly accessible areas of the north-western coastal areas such as Sungei Buloh Nature Reserve, inspired by the mangrove resorts found in neighbouring ASEAN countries. In the long term, she aims to contribute to shaping policies and practices that leave a lasting, positive imprint on the environment.</p>
2	Ong Xin Yu Age: 20	Bachelor of Engineering in Environmental Engineering National University of Singapore	<p>Xin Yu's study in Environmental and Water Technology at Ngee Ann Polytechnic and internship opportunity at one of PUB's water treatment plants have allowed her to gain a deeper understanding of water treatment processes and encouraged her to pursue a degree in Environmental Engineering.</p> <p>Xin Yu aspires to become an environmental engineer with PUB upon graduation and she looks forward to utilising her skills and knowledge to address the current and evolving challenges in water treatment. In the future, she also hopes to make significant contributions towards safeguarding Singapore's water supply by exploring innovative solutions and leveraging advanced technologies.</p>

S/N	Name and age	Course and University	Profile
3	Tan Kai Jie 20 years old	Bachelor of Engineering in Chemical Engineering Imperial College London, United Kingdom	<p>Kai Jie's long-standing fascination with development in STEM, fuelled by his aptitude in science and math motivated him to seek a career with opportunities to contribute to innovative solutions for future challenges. A book that he read called "Eating Chilli Crab in the Anthropocene", which examines contemporary Singapore from an ecocultural lens, ignited his curiosity about sustainability and served as an epiphany that strengthened his belief in the pivotal role that we can play in achieving a sustainable future.</p> <p>Kai Jie believes that Chemical Engineering, with its focus on sustainability, offers the ideal platform for him to contribute to areas like sustainability through large scale projects and provides opportunities for him to address pressing global challenges in the future upon graduation. His goal is to drive positive change and contribute to building a more resilient future for generations to come.</p>
4	Wang Yifei 21 years old	Bachelor of Engineering in Electrical Engineering Cambridge University, United Kingdom	<p>Yifei's diverse research internship experiences with organisations like A*Star and Rolls-Royce Singapore have shown her the transformative potential of technology. She believes engineering is the key to realising ideas and is committed to dedicating her skills to designing innovative solutions.</p> <p>Yifei is excited to start her career as an electrical or environmental engineer at PUB and she looks forward to applying and expanding her skills gained from Cambridge's Electrical Engineering course upon graduation.</p>
5	Ong Khai Yang 23 years old	Bachelor of Engineering in Environmental Engineering National University of Singapore	<p>Khai Yang has a strong interest in the environment, especially on water-related issues and coastal protection. An avid kayaker, he joined Project OceaNUS, an Overseas Community Involvement Program (OCIP) to bring environmental solutions to the overseas community. Through the knowledge gained from his current Environmental Engineering course at National University of Singapore, he hopes to contribute meaningfully to the built and natural environment of Singapore.</p> <p>Upon graduation, Khai Yang is keen to be part of projects that can contribute positively to climate change.</p>
6	Chen Rui Yi Jamie (Jamie Cheng) 25 years old	Bachelor of Engineering in Mechanical Engineering Boston University, United States	<p>Jamie's pursuit of Mechanical Engineering is borne from his deep-seated passion for sustainability and his desire to contribute to Singapore's sustainable future. Through his internship with Jacobs International Consultants, he had the opportunity to work with the PUB team constructing the future Tuas Water Reclamation Plant which left a lasting impression on him and cemented his desire to contribute to Singapore's sustainable future.</p> <p>As an aspiring engineer with a commitment to sustainability, Jamie looks forward to collaborating with different organisations and government bodies to foster innovative and sustainable practices.</p>

Profiles of in-service scholars

PUB, Singapore's National Water Agency (2 recipients)

S/N	Name and age	Course and University	Profile
1	Faisal Ahmad Age: 37	MSc Artificial Intelligence for Sustainable Development University College London, United Kingdom	<p>Current designation: Senior Assistant Director, Smart Operations Division, Infotech and Digitalisation Department</p> <p>Faisal is responsible for implementing enterprise digitalisation projects using IoT, AI and digital twins to build a productive and future-ready PUB that can do more with less, and overcome anticipated challenges of increasing water demand, a shrinking workforce and evolving cyber threats.</p> <p>PUB is furthering its efforts to fully exploit the benefits of AI technology in delivering its mission and this would require a greater understanding of the technology and its potential applications within PUB. Pursuing a Master in Artificial Intelligence for Sustainable Development would allow Faisal to gain hands-on experience and deep dive into AI applications in the sustainability sector. With the knowledge gained from the course, he hopes to contribute towards integrating AI seamlessly into PUB's core operations and ensuring its effective management.</p>
2	Xingxia Chen Age: 38	MSc Systems Engineering Management University College London, United Kingdom	<p>Current designation: Senior Assistant Director, System Operations, Joint Operations Department</p> <p>Xingxia leads a team of officers at PUB to ensure efficient and optimal management of Singapore's water system through systems planning, as well as coordinating and executing joint operations command and control. She is also responsible for development of the Intelligent Water Management System to support daily operations and incident management.</p> <p>Pursuing a Master in Systems Engineering Management will equip Xingxia with advanced problem-solving skills and strategic planning capabilities, allowing her to explore opportunities to optimise the management of Singapore's water system in a manner that aligns with PUB's mission, thus ensuring the long-term resiliency of Singapore's water resources.</p>