NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

PDUs by PEB (pending)

Short Course

On

INNOVATION FOR ENVIRONMENTAL ECONOMICS AND SUSTAINABLE GROWTH

Learn from University Professor who is also an industry expert with real life examples .

Date and Venue

20 Feb 2025 (Thursday)

@NTU-CEE Seminar Room A (N1-B1b-06)

Programme Fee: *$600/ pax*

$450/ pax (NTU Alumni)

Fees inclusive of prevailing GST, lunch and tea breaks

For Whom

Engineers, Project Managers, Aspiring Project Managers, Planners, Consultants and Entrepreneur

Course Instructor

Dr Sun Delai, Darren

(NTU School of Civil and Environmental Engineering)

~~~ Course Objective ~~~

This short course empowers you to manage environmental sustainability projects and examines the practices of leadership in environmental innovation for economic and sustainable development sector by exploring several key themes and topics. These include environmental economic; environmental pollution and control; climate change; water crisis; solid and toxic waste, relationship between economy and sustainability. New innovation potential impacts on economic activities and enterprise including nanomaterials, nanobubble, 3D printing nanotechnology for NEWater/renewable energy production, industrial wastewater reclamation, CO_2 for value-added product generation, and healthy longevity application.

This course is to shape the future leadership in environmental economic and sustainable management sectors. This course is to nurture a passion for innovation and leadership in environment economic sustainability.

Organized by:

School of Civil and Environmental Engineering (CEE), College of Engineering,
Nanyang Technological University, Singapore 639798

~~~ Course Outline ~~~

The course will be conducted in 4 sessions of 2-hour duration each.

Sessions 1,2,3, & 4 (am & pm) 20 Feb 2025 Thursday (9am to 6pm)

Session 1: Introduction to Environmental Economics and Sustainable.
Session 2: Principles of Environmental Economics, Economic Growth, Environmental Protection and Resources.
Session 3: Sustainable Development: Waste-to-Energy (WTE), NEWater, Renewable Energy Production, CO_2 for Value-Added Product, Economic & Financial Evaluation etc
Session 4: Innovation and Disruptive Technologies for Sustainable Development, Interdisciplinary Industrial Application, NEWSkin and Face Mask and Enterprise.

~~~ About the Instructor ~~~

Darren Sun obtained his PhD degree in Chemical Engineering from The University of New South Wales, Australia in 1993. He is an international renowned scientist and engineer in the field of nano materials and 3D printing membrane for sustainable water and energy applications. Darren has published more than 220 scientific publications on various prestigious high impact journals with citation/h-index: 17316/69. His TiO_2 nanofiber research was highlighted in the October 2006 issue of Nature. Over the past 30 years, Darren has been engaged by various multi-international companies and government agencies as a professional consultant or advisor for engineering projects. Darren is an International Water Associate (IWA) Fellow, International Association of Advanced Materials (IAAM) Fellow, Editor-in-Chief Explora: Environment and Resource and Editor for Journal of Chemistry. He was invited to chair the Shimizu Programme with the title of Shimizu Visiting Professor at Environmental Engineering and Science Program, Stanford University, USA. Top-2% scientist list by Stanford University (2022, 2023 & 2024). Darren was the recipient of more than 10 National and international awards including "*Best Innovation and Emerging Enterprise Awards, Singapore, 2021*."

Darren was encouraged by international communities to commercialise nano materials and 3D printing technology for membrane fabrication. This includes the invited discussion at George Marshall Conference Room at the State Department, Washington DC, on "How to deploy nano and 3D printing technologies to the market" in 2014. Taking research and development technology from Nanyang Technological University, and strong support from EDB Singapore to market. Darren took the initiative to form the commercial entity of Nanosun Pte Ltd. Today, Nanosun's nano 3D Printed Membrane was chosen as a Top 5 technology at the 2019 Global Water Summit Technology Competition, and Frost & Sullivan Asia Pacific Water Membrane Innovation Award in 2015.