

PREFACE

On behalf of the Organizing Committee, it is my distinct honour to welcome you to the 4th International Seminar on Science and Applied Technology (ISSAT), convened under the theme *“Green Technology and AI-Driven Innovations in Sustainability Development and Environmental Conservation”*.

This seminar, taking place on October 15th, 2025, at the Campus of Politeknik Negeri Bandung (Polban), West Java Province, Indonesia, has attracted outstanding international participation, with authors and presenters representing a wide range of institutions — starting from local institutions in Indonesia, and extending to global contributors from New Zealand, Malaysia, Thailand, Vietnam, Taiwan, Japan, Ukraine, the United Arab Emirates (UAE), the United Kingdom (UK), and the United States of America (USA). We recognize the significance of a multidisciplinary approach, and thus, we invite professors, researchers, students, and professionals from a diverse range of fields including soil sciences, hydrology, geology, geography, energy engineering (production, distribution, and storage), renewable energy, sustainable development, natural resources management, environmental health, green infrastructure, artificial intelligence dan human computer interaction.

We are deeply grateful to our distinguished keynote speakers: Professor Yu-Shen Cheng (National Yunlin University of Science and Technology, Taiwan), Professor Yasuyuki Nabeshima (NIT Akashi College, Japan), Professor Windy Hermawan Mitrakusuma (Politeknik Negeri Bandung, Indonesia). and Dr. Nur Fahriza Mohd Ali (UMPSA, Malaysia). Their insights significantly enrich the conference.

We wish to extend our sincere thanks to the reviewers for their rigorous work, the tremendous organizing committee and creative team for their dedication, and all participants for their valuable contributions. Special acknowledgment is also due to E3S as our publishing partner and to our sponsors for their generous support. With these acknowledgments, we sincerely hope it will foster meaningful discussions, strong collaborations, and innovative contributions toward sustainability.

The Editors,

Professor Hee-Deung Park – Korea University, South Korea

Professor Andriyanto Setyawan - Politeknik Negeri Bandung, Indonesia

Dr. Ong Tze Ching - Politeknik Kuching Sarawak, Malaysia

Dr. Yackob Astor, S.T., M.T. - Politeknik Negeri Bandung, Indonesia

ISSAT

4th International Seminar of Science and Applied Technology

Theme:

Green Technology and AI-Driven Innovations in Sustainability Development and Environmental Conservation

KEYNOTE SPEAKERS



Professor Yu-Shen Cheng

National Yun-In University of Science and Technology, Taiwan



Professor Yasuyuki Nabeshima

National Institute of Technology (NIT), Akashi College, Japan



Professor Windy Hermawan Mitrakusuma

Politeknik Negeri Bandung, Indonesia

OFFLINE CONFERENCE

Campus Politeknik Negeri Bandung (Polban), West Java Province, Indonesia

15th
Oct
2025

The International Seminar of Science and Applied Technology (ISSAT) is organized by Politeknik Negeri Bandung (Polban) to build a culture of international seminars and publications in the field of applied science and technology. The keynote speakers not only have international publication achievements but also industrialization experience from the results of research conducted in the engineering and non-engineering fields. ISSAT 2025 invites governments, academics, practitioners, and industries to talk together in Green Technology and AI-Driven Innovations in Sustainability Development and Environmental Conservation.



For more information, please visit our website
<https://issat.polban.ac.id/2025/>

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- ✓ Green infrastructure
- ✓ Artificial intelligence and Human-computer interaction