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Future Issues and Energy | Benjamin Ang and Karryl Sagun-Trajano

For our third issue of Science, Technology and Security (STS) Bulletin, we focus on three types of energy technologies: (1) fusion (including an additional article on advancements in fusion and AI technologies), (2) nuclear, and (3) hydrogen. These expert contributions were written by Dr Elias Carayannis, Professor of Information Systems and Technology Management and Director, European Union Research Centre, at George Washington University in Washington DC, USA, Dr Alvin Chew, Senior Fellow at RSIS, and Dr Frank Umbach, Adjunct Senior Fellow at RSIS and Research Director at the European Cluster for Climate Energy and Resource Security (EUCERS)/Center for Advanced Security, Strategic and Integration Studies (CASSIS) at the University of Bonn.

STS is edited by the Future Issues and Technology (FIT) cluster and features thought pieces on key emerging technologies, such as AI, space, quantum technologies, technology geopolitics, and smart cities. We aim to explicate novel technologies in relation to policy to facilitate discussion, information sharing, and collaboration. Recently, we have published a [commentary](#) on space and its relation and contribution to better public health.

We also conduct seminars to further explain key emerging technologies not just for the benefit of experts but also the general public. In April 2024, we hosted Dr Francis Kim, Assistant Professor at the School of Integrated Innovation, Chulalongkorn University, Thailand. His talk, “Differentiating Among Deep Tech Projects: from AI to the Metaverse for Policymakers”, discussed the four different types of innovative projects that stem from technological and market uncertainties. Addressing policymakers, Dr Kim’s talk stressed that a nuanced understanding of these deep tech projects, from AI to the Metaverse, is crucial for identifying and supporting initiatives that have the potential to significantly influence human security. The talk was moderated by the Head of FIT, Senior Fellow Benjamin Ang.

In the same month, FIT worked collaboratively with the Centre of Excellence for National Security (CENS) at RSIS for the Asia-Pacific Programme for Senior National Security Officers (APPSNO), where FIT Research Fellow Karryl Sagun-Trajano chaired the last panel on Securing Energy Commons Against Climate Change. In May 2024, Dr Trajano chaired an RSIS seminar by Dr Cung Vu titled “Artificial Intelligence: Transforming National Security, Geopolitics, and Beyond”. The

seminar examined the critical role of AI in national security and geopolitics, highlighting the competitive race for AI leadership between the United States and China.

Moving forward, FIT will be producing this Bulletin as a series, facilitating seminars and webinars, running an in-person executive course, publishing, and conducting research in critical emerging technologies. If you wish to collaborate or network with us, please reach out.

About the Authors

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