

Biography: Prof. Debdeep Mukhopadhyay is an Institute Chair Professor at the Department of CSE, IIT Kharagpur, India. At IIT Kharagpur he initiated Secured Embedded Architecture Laboratory (SEAL), focusing on Hardware-Security. Prior to that he was a visiting Professor in the school of Computer Engineering, NYU Abu Dhabi, and had visiting positions at NTU Singapore, NYU Shanghai, and Brooklyn. He was also an Assistant Professor at IIT Madras, and held an adjunct position at IIT Bhubaneswar. He holds a Ph.D, M.S., and a B.Tech from IIT Kharagpur. His research interests are on the topics of Cryptographic Engineering, Micro-architectural security and Hardware-Security. Recently he is intrigued by dependable AI, adversarial attacks on machine-learning, and encrypted computations, which includes homomorphic computations and searchable encryptions for privacy preserving machine learning.

Dr Mukhopadhyay has published more than 300 papers in peer reviewed conferences and journals, and is in the editorial boards and program committees of several top journals and conferences. Currently, he is the Editor-in-Chief of the International Association of Cryptologic Research (IACR)-Transactions in Cryptographic Hardware and Embedded Systems (TCHES) 2025, ACM AsiaCCS 2026, and is a senior Editor of IEEE Transactions of Information Forensics and Security. He is a member of the IEEE Hardware Security Standards Committee and of the IJCAI Doctoral Committee. His works have been recognized as best/distinguished papers awards/nominations at multiple conferences and journals. His paper published at Eurocrypt'20 on "Fault Template Attacks on Block Ciphers Exploiting Fault Propagation", was selected as Top Picks in Hardware and Embedded Security in 2024 (<https://hwsectoppick24.wordpress.com/>).

Debdeep is the recipient of the prestigious Shanti Swarup Bhatnagar Award 2021 for Science and Technology (highest science honor in India below the age of 45) for his radical contributions to fault attacks, micro-architectural security and crypto-engineering, that holistically bridges the spectrum from core mathematical foundations to practical attack scenarios. He is a Fellow of the Institute of Electrical and Electronics Engineers (FIEEE), Fellow of the National Science Academy (FNA), the Indian Academy of Sciences (FASc), the National Academy of Engineers (FNAE), and Fellow of the Asia-Pacific Artificial Intelligence Association (FAAIA) for contributions to design and analysis of hardware security primitives and Information Security. He was a fellow of C3iHub (Cyber Security and Cyber Security for Cyber-Physical Systems) Innovation Hub of IIT Kanpur, and has been enlisted in Asia's most outstanding researchers compiled by Asian Scientist Magazine (<https://tinyurl.com/2vr8jaks>). He was awarded the Qualcomm Faculty Award 2022, Khosla National Award from IIT Roorkee 2021, DST Swarnajayanti Fellowship 2015-16, INSA Young Scientist award, INAE Young Engineer award, and Associateship for the Indian Academy of Sciences. He was also selected as one of 200 outstanding academicians from among the 1,300+ fellows of the Asia-Pacific Artificial Intelligence Association who have active projects in the field of artificial intelligence that can be industrialized.