

**Amit Banerjee, Ph.D.**

**Principal Scientist, BenerjeeSystemLabs;**

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**Keynote Speaker; Scientific Author & Editor;**

*Dr. Amit Banerjee* joined the *Advanced Device Research Division, Research Institute of Electronics, Shizuoka University, National University Corporation, Japan* as a *Scientific Researcher* in 2016 and was also part of the *Innovative Photonics Evolution Research Center at Hamamatsu, Japan*. He later joined the *Microelectronic Technologies & Devices, Department of Electrical and Computer Engineering of the prestigious National University of Singapore, as Scientist* in 2017. Amit started to work closely with national agencies and state institutions in India during the Covid'19 global pandemic, in 2020, combating the immediate economic crisis. Currently Amit is *member of 40+ international*



*advisory boards, technical program committees* in various countries: *Adviser and Lead Contributor: Semiconductor Devices and Process Technologies, EDGE196, Entrepreneur Development Global Ecosystem; Adviser, EntrepreneursFace, Global Venture Capital and Entrepreneurs Network, Singapore; Scientific Adviser to ULVAC Technologies Inc. Japan/USA; also worked as Scientific Adviser to West Bengal Electronics Industry Development Corporation Limited (WEBEL) for Technology Collaboration and Business Cooperation with ULVAC Technologies Inc and further setting up a Microelectronics Hub in Bengal under the Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing Schemes '2020 by Govt of India; Scientific Adviser to ISF Analytica & Informatica, Scientific Adviser to Digivalley Innovations; External Adviser, Bioelectronics and Biomedical Technologies, Ocuoro Science and Technology (biomed-startup); Scientific Adviser to Ominar Innovations (biomed-startup); Consultant with Asentrex Global, Scientific Adviser to PikTale (startup social media platform), member of Japan Society of Applied Physics; member of Society for Functional Nanomaterials, by UCLan's Institute of Nanotechnology and Bioengineering, UK; life member Indian Physical Society.* Alongside the pursuit of high-tech research, consulting futuristic technologies for business firms, Amit is keenly engaged in consulting educational ventures and universities: *Academic Adviser/Visiting Faculty to NSHM Group of Institutions, Brainware University, Swami Vivekananda University; Arohan Educan Ltd. London, UK; Ambassador, Bentham Science Publishers, SG.*

Amit received Ph.D. degree in Semiconductor Technology from Energy Research Unit, Indian Association for the Cultivation of Science (D.S.T., Govt. of India) and has extensively worked on design and development of *high vacuum plasma CVD reactors*, which are used in industrial manufacturing of solar cells, coatings and TFTs. He also developed low cost high vacuum MW-PECVD units, and conceived the process for cost effective commercial grade antireflection coatings (ARC) synthesis for solar cells by *nanocrystalline diamonds (NCDs)*. His current work is on *Terahertz Technology*, including THz sensors and sources, design, fabrication, aiming at biomedical imaging applications. His recent work on antenna-coupled microbolometer arrays, are *compatible with the state-of-the-art medium-scale semiconductor device fabrication processes, and technologically competitive with commercial viability as on-chip integrable detector arrays for terahertz imaging.*

Amit has co-authored several *scientific papers, presented in several international conferences as plenary and keynote speaker, received 7 international awards including Award by Quality in Research (QiR), Indonesia; Award in Industrial and Clinical Applications by University of Central Lancashire, UK; Young Physicist Award and honorary life-membership from Indian Physical Society; Award by the Metrology Society of India (MSI); Award Indian Institute of Chemical Engineers (IChE); Award by Dept. of Atomic Energy (D.A.E.).* Amit has authored/edited Nine books: “Terahertz Biomedical and Healthcare Technologies”, Elsevier; “Emerging Trends in Terahertz Solid-State Physics and Devices”, Springer Nature; “Artificial Intelligence and the Fourth Industrial Revolution”, Pan Stanford Publishing, Singapore; "Advances in Computer, Communication and Control" Springer Nature; “Internet of Things for Healthcare Technologies”, Springer Nature, “Internet of Medical Things for Smart Healthcare”, Springer Nature, “Emerging Trends in Terahertz Engineering and System Technologies”, Springer Nature; “Computationally Intensive Statistics for Intelligent IoT”, Springer Nature; “Carbon Quantum Dots for Sustainable Energy and Optoelectronics”, Elsevier.