

## Delegation - UK



Yoshishige Tsuchiya

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Dr Yoshishige Tsuchiya is an Associate Professor in the School of Electronics and Computer Science (ECS), University of Southampton. He received a PhD in multidisciplinary science from the University of Tokyo, Japan, where he held JSPS fellowship working on exotic superconductors. He joined the Tokyo Institute of Technology as an Assistant Professor in 2001, where he developed a novel Si nanoelectromechanical (NEM) memory and Si quantum-dot single electron transfer devices under the JST 10-year 'Neo-Silicon' project. Since he came to Southampton in 2008, he has developed integrated Si NEM mass sensors, Si spin-qubit devices and energy-reversible NEM switches, under EU- or UK-funded projects including EU FP7 NEMSIC, EPSRC SISSQIT, or EPSRC NOVLOS, where he has worked with industrial partners such as Hitachi, NTT, or Honeywell (Romania), and international collaborators including EPFL, CEA-Leti, IMEC, TU Delft, NIMS, and RIKEN. He is currently leading the Chist-Era NOEMIA project (2023-2026) to develop novel Nano-Opto-Electro-Mechanical Systems (NOEMS) for energy-efficient computing in collaboration with IEMN in France, NTU in Taiwan, RTU in Latvia, and ITCAS in Czech. He is also the ECS representative of an EPSRC PhD studentship programme of Center for Doctoral Training in Quantum Technology Engineering (CDT-QTE, 2024-2033). He has strong technical expertise on silicon nanodevice design and fabrication, quantum devices, NEM devices, NOEMS, and nanoscale imaging. He is a Fellow of Higher Education Academy, and a member of IoP, IET, and IEEE. He has published 190 peer-reviewed journal and conference papers.