ARAP WITH IMRE RESEARCH AREA: MICROELECTRONICS AND SEMICONDUCTORS

#	A*STAR Researcher	Designation	Email Address	Research Area
1	Chellappan Vijila	Senior Scientist	c-vijila@imre.a-star.edu.sg	Organic semiconductors, Optoelectronic devices PhotoPhysics
2	Lim Sze Ter	Senior Scientist / Head of Dept	Lim_Sze_Ter@imre.a-star.edu.sg	Magnetic materials and devices, nanotechnology, ultrafast devices physics and characterizations
3	Liu Yuanda	Scientist	liuyd@imre.a-star.edu.sg	The research in my laboratory focuses on interlayer excitons devices, semiconductor devices, optoelectronics, optics, 2D materials, and nanofabrication. I would like to collaborate with groups which are interested in novel physics and device physics on the basis of 2D layered materials, optoelectronics, microelectronics, optics.
4	Sudhiranjan Tripathy	Senior Scientist	tripathy-sudhiranjan@imre.a-star.edu.sg	Development Power and mmWave Electronics using wide bandgap semiconductors such as GaN and SiC platforms.
5	Sudhiranjan Tripathy	Senior Scientist	tripathy-sudhiranjan@imre.a-star.edu.sg	Wide Bandgap Semiconductors Research and Development for Power and mmWave electronics (GaN and SiC)
6	Sudhiranjan Tripathy	Senior Scientist	tripathy-sudhiranjan@imre.a-star.edu.sg	The research work in the group is focused on the development of GaN heteroepitaxial layers and 4H-SiC homo-epitaxial layers for high voltage electronics, using MOCVD, high temperature hotwall CVD, and related characterization and tests. The recent work aims to develop large wafer area III-Nitride based epitaxial growth on SiC, high-resistive silicon toward beyond 5G RF electronics and Sensors. We would like to collaborate with research groups with interests to prototype SiC Power Devices and GaN-based high cut-OFF frequency transistors.
7	Yao Kui	Principal Scientist	k-yao@imre.a-star.edu.sg	Battery-less and wireless sensors With the rapid progresses in computation capability and artificial intelligence, innovations in sensors and the ways of their implementations in the structures are required for radically upgrading various monitoring technologies with distributive intelligence as demanded in smart systems. Our team has proposed integration of ultrasonic transducers made of piezoelectric materials on the structures to be monitored. The feasibility for in-situ detection of various structural defects, including cracks, corrosions, and metallic plastic deformations, are being demonstrated using direct-write transducers and transducer array, in combination with the development of corresponding signal processing algorithm. Energy harvesting and noncontact operation solutions are under development to realize battery-less and wireless sensors as desired by the end users. The students will have the chance to work on high sensitive ultrasonic transducers, light-acoustic interactions, and/or signal transmission and processing algorithms, in collaboration with a multidisciplinary project team, depending on their interests and technical background. The research in my laboratory focuses on design and fabrication of novel sensors. I would like to collaborate with groups which have expertise in circuit designs, IC designs, modelling and simulations.
8	Zhang Lei	Senior Scientist	zhangl@imre.a-star.edu.sg	The research in my laboratory focuses on ultrasonic methods, piezoelectric ultrasonic transducers and nondestructive testing. I would like to collaborate with groups who are interested in ultrasonic testing, physical acoustics and transducer technologies.