

Institute of Chemical & Engineering Sciences (ICES)

Chemical and Pharmaceutical Processing, reactor design, formulation processes

Name	Project	Degree By
Dr Chen Luwei chen_luwei@ices.a-star.edu.sg	Heterogeneous Catalysis Plasma catalysis C1 chemistry, valorization of CO <sub>2</sub> Catalyst development for H <sub>2</sub> production Biomass conversion to fuels and chemicals Nanostructure functional materials	NUS/NTU/SUTD
Dr LIU Yan, Senior Scientist II Liu_yan@ices.a-star.edu.sg	Materials development for photocatalysis and electrocatalysis Functional porous materials Single site / nano-structural catalysts Biomass conversion Catalytic activation, conversion and utilization of CH <sub>4</sub> / CO <sub>2</sub>	NUS/NTU/SUTD
Dr Armando Borgna Armando_Borgna@ices.a-star.edu.sg	Development of Heterogeneous Catalyst & Catalytic Processes C1 Chemistry, CO <sub>2</sub> conversion & H <sub>2</sub> production ML/AI assisted catalyst development Nanostructure catalysts Synchrotron-related techniques Biomass conversion to fuels and chemicals Alternate Energy	NUS/NTU/SUTD

Alternate Energy

Name	Project	Degree By
Dr Armando Borgna Armando_Borgna@ices.a-star.edu.sg	Development of Heterogeneous Catalyst & Catalytic Processes C1 Chemistry, CO <sub>2</sub> conversion & H <sub>2</sub> production ML/AI assisted catalyst development Nanostructure catalysts Synchrotron-related techniques Biomass conversion to fuels and chemicals Alternate Energy	NUS/NTU/SUTD

Material Sciences

Name	Project	Degree By
Dr Armando Borgna Armando_Borgna@ices.a-star.edu.sg	Development of Heterogeneous Catalyst & Catalytic Processes C1 Chemistry, CO <sub>2</sub> conversion & H <sub>2</sub> production ML/AI assisted catalyst development Nanostructure catalysts Synchrotron-related techniques Biomass conversion to fuels and chemicals Alternate Energy	NUS/NTU/SUTD

Process Science and Modelling

Name	Project	Degree By
Dr Shaik Salim Shaik_Salim@ices.a-star.edu.sg	Process and industrial safety including reactive chemical hazards, fires and explosions, combustible dust hazards, dispersion modelling, as well as risk assessment methodologies, environmental and occupational safety and health, safety management systems and safety culture	NUS/NTU/SUTD