

Research, Informatics and Graduate Studies

<https://sites.gtiit.edu.cn/research/positions/gs-2026003/>

PhD/Master (MSc) Position in AI for Sustainability (GS-2026003) – Group of Assoc. Prof. Jianping Li

Description

The Research Group of Prof. Jianping Li in the Department of Chemical Engineering at the Guangdong Technion-Israel Institute of Technology (GTIIT) is recruiting 1–2 Ph.D. students and Master (MSc) students. The group develops optimization, machine learning, molecular simulation, and techno-economic analysis methods for sustainable chemical manufacturing, intelligent process design, and low-carbon energy systems. Contract duration: 2-3 years for Master and 3.5-4 years for PhD.

Project Details

Our group focuses on the development of computational methodologies for sustainable chemical manufacturing and intelligent process design. Current research interests include process systems engineering, process optimization, product-process co-design, process synthesis, process intensification, machine learning for chemical engineering, molecular simulation, molecular thermodynamics, sustainable energy systems, and techno-economic analysis. Students will develop mathematical models and computational tools to address challenging problems in chemical engineering, energy, and sustainability by integrating optimization, artificial intelligence, molecular simulation, and process simulation. The group provides an international research environment with opportunities for collaboration with Technion (Israel) and research institutions worldwide.

Keywords

Process Systems Engineering; Process Optimization; Process Synthesis; Process Intensification; Product-Process Co-design; Mathematical Optimization; Machine Learning; Molecular Simulation; Molecular Thermodynamics; Sustainable Energy Systems; Green Chemical Engineering; Low-Carbon Manufacturing; Intelligent Manufacturing; Circular Economy; Biomass Valorization; Plastic Waste Recycling; CCUS; Techno-economic Analysis

Selection Criteria

Ph.D. Applicants

- Master's degree (or equivalent) in chemical engineering, process systems engineering, energy engineering, mechanical engineering, applied mathematics, computer science, chemistry, materials science, or a related discipline (essential)
- Strong interest in process systems engineering, AI, sustainable chemical manufacturing, or energy systems (essential)
- Programming experience in Python, MATLAB, GAMS, Pyomo, Aspen Plus, IDAES, or related software is an advantage (preferred)
- Good analytical and problem-solving skills (essential)
- Good communication skills and proficiency in English (essential)
- Ability to work independently as well as in a collaborative research environment (essential)
- Ability to prepare scientific reports and contribute to peer-reviewed publications (essential)

Master (M.Sc.) Applicants

Position

PhD/Master

Program

Chemical Engineering

Contact

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[Web Page Link](https://sites.gtiit.edu.cn/research/positions/gs-2026003/)

Date posted

July 15, 2026

Location

Guangdong Technion – Israel Institute of Technology (GTIIT), China & Technion-Israel Institute of Technology, Israel.

[Fees & Finance](#)

How to Apply

- The M.Sc. position is intended for students who will transition to the Ph.D. program in our research group after one year.
- Bachelor's degree in chemical engineering, process systems engineering, energy engineering, mechanical engineering, applied mathematics, computer science, chemistry, materials science, or related discipline (essential)
- Strong interest in computational methods for chemical engineering and sustainable energy (essential)
- Background in programming, mathematical modeling, optimization, machine learning, or molecular simulation is desirable (preferred)
- Good communication skills and proficiency in English (essential)
- Ability to work independently as well as in a collaborative research environment (essential)

– The PhD/Master candidate must fulfill the requirements for admission to the Technion Graduate School and needs to follow the procedure leading to the PhD/Master degree: <https://graduate.technion.ac.il/en/prospective-students/>

Application:

- Application deadline: Open till filled
- Send required documents (CV and Undergraduate and Master's transcripts) electronically to: jianping.li@gtiit.edu.cn

Contact

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Web Page : <https://sites.gtiit.edu.cn/research/people/jianping-li-2/>