

# Research, Informatics and Graduate Studies

<https://sites.gtiit.edu.cn/research/positions/guangdong-technion-israel-institute-of-technology-job-post-research-fellow-vikrant-guptaa-research-group-1/>

## Guangdong Technion-Israel Institute of Technology Job Post – Research Fellow (Vikrant Gupta a Research Group)

### Description

**Position Title:** Research Fellow

**Department:** Mechanical Engineering Robotics

**Report to:** Vikrant Gupta

**Start Date:** 26-04-01

**Type of Position:** Full-time

**Number of Hiring:** 1

### Position Description:

Data-driven methods are gaining popularity for predicting complex systems, including turbulent flows. In this project, we focus on implementing data assimilation methods to predict high-Reynolds number wall flows relevant to wind energy. Data assimilation methods constrain the governing equations to be close to the ground truth by optimally using the available sparse measurements. However, it is not clear under what conditions can they work, if they can be scaled to high Reynolds numbers, and if they can handle the intermittent dynamics of three-dimensional turbulence. The postdoctoral research fellow will combine CFD, low-order modelling, machine learning with data assimilation techniques to answer these challenging questions.

### Duties and Responsibilities:

- Implement ensemble Kalman Filter and particle filters for predicting wall turbulence
- Publish work in high impact journals and present at reputed international conferences
- Support graduate students in the research group
- Maintain GPU clusters in the group and help with procuring new clusters
- Help the PI with other research tasks

### Required Job Specifications

- Required qualification / academic degree: PhD in computational fluid dynamics and related area.
- Required experience: Experience in high performance computing is a must. Experience in boundary layer simulations, wind turbine simulations, and GPU computations are desirable.

### Required Job Competencies:

### Position

Research Fellow

### Program

Mechanical Engineering Robotics

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### Contact

Assoc. Prof. Vikrant Gupta

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Webpage: [Personal Webpage](#)

### Application Deadline

Open till filled

### Date posted

December 17, 2025

### Location

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

- Language ability:C, C++, and Fortran
- Proven publication track record
- Ability to work in a team

**Application Details**

Please send your CV with a cover letter to [vikrant.gupta@gtiit.edu.cn](mailto:vikrant.gupta@gtiit.edu.cn) in the format of name + position (post ID). Only qualified candidates will be contacted.