Research, Informatics and Graduate Studies

PhD Positions in Wind turbine wake modelling (GS-2024006) – Group of Assoc. Prof. Vikrant Gupta

Description
The Mechanical Engineering (Robotics) Program (group of Vikrant Gupta) is looking for a motivated PhD candidate to conduct research on dynamic modelling of wind turbine wakes. Contract duration: 3 + 1 years.

Project Details
Deployment of wind turbines is increasing worldwide. They are becoming larger, closely packed, and located in increasingly unexplored terrain. This project aims to develop a low-dimensional dynamical model for wind turbine wakes that can seamlessly account for varied atmospheric inflow conditions. The model will run on a GPU-accelerated CFD solver to achieve real-time performance. The aim will be to design a model that can aid wind farm design, calculate wake effects and assist dynamic control.

The student will work in collaboration with other team members and have access to research facilities at Guangdong Technion and Technion-IIT, Israel. There will be collaboration opportunities with the fastest growing wind industry for which Shantou has emerged as a hub. International students are welcome. The tuition will be fully covered and a generous stipend is offered (per month RMB 7000 in Shantou and $ 2167 in Haifa). The degree is from Technion – Israel Institute of Technology, which is among the most reputed universities in the world, and we maintain the same qualification standards at Guangdong Technion.

Keywords
Wind energy, Renewable energy, Turbulence, Computational Fluid Dynamics, Machine Learning

Selection Criteria

- Master's degree (or an excellent Bachelor's degree) in Engineering or Science (essential)
- Basic understanding of the Navier-Stokes equations and CFD (essential)
- Experience in low-order modelling (desirable)
- Good communication skills, good command of English (essential)
- Ability to work independently as well as in a team environment (essential)
- Ability to author scientific reports and co-author scientific publications (essential)
- The PhD candidate must fulfill the requirements for admission to the Technion Graduate School and needs to comply with its regulations leading to the PhD degree: https://graduate.technion.ac.il/en/prospective-students/

Application

- Application deadline: 31 December 2024 (full consideration), 28 February 2025
- Send required documents to: vikrant.gupta@gtiit.edu.cn
- Please click here for the details.

Position
PhD

Program
Mechanical Engineering (Robotics)

Contact
Assoc. Prof. Vikrant Gupta

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Web Page Link

Application Deadline
28 February 2025

Date posted
September 10, 2024

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

Fees & Finance

How to Apply

Contact
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Web Page : https://www.gtiit.edu.cn/en/viewStaff.aspx?staffNo=1290