Ref: SICRG/20-21/042   Date: 10th Dec. 2020

JRF Recruitment in Shastri Indo Canadian Scheme Sponsored Project

Applications are invited from eligible candidates to work as a Junior Research Fellow (JRF) in Shastri Institutional Collaborative Research Grant (SICRG) sponsored project at the Electrical and Electronics Engineering Department, BITS-Pilani, (Pilani campus), Rajasthan. The details are as follows:

Project Tile	**Artificial Intelligence Enabled Security Provisioning and Vehicular Vision Innovations for Autonomous Vehicles**
Project Duration	2 years
Project Investigators	Dr. Vinay Chamola, BITS-Pilani (PI) & Prof. F. Richard Yu, Carleton Univ., Canada (Co-PI)
Project Description	This project is aimed at developing security schemes and vehicular vision solutions using machine learning (ML) for autonomous driving. Supervised and unsupervised deep learning, and other ML techniques would be used to identify anomalous cab behaviour & security attacks. These techniques would also be used for image processing to develop robust computer vision systems so as to facilitate autonomous driving in hazy/ rainy environments. The JRF would get an opportunity to be supervised by *Dr. Vinay Chamola*, BITS-Pilani (https://scholar.google.co.in/citations?hl=en&user=pL5TogoAAAAJ) and co-supervised by *Prof. F Richard Yu (Fellow, IEEE)*, Carleton University, Canada (https://scholar.google.co.in/citations?hl=en&user=zuGMGBoAAAAJ). The candidate would work in the *BITS IoT Lab* (https://bitsiotlab.tech/), and would get an opportunity to work on state of the art hardware like Nvidia Jeson Nano, Nvidia Xavier, Xilinx PYNQ-Z2 etc. The JRF will also get an fully *funded opportunity to visit Prof. F. Richard Yu's Lab at Carleton University, Canada* for 3 months during his tenure.
Fellowship	Rs. 31,000/- per month.
Essential Qualifications	a. The candidate's age must be <= 30 years. b. M.E./M.Tech with *at least 60% marks* in any domain related to Electronics/ Computer Science. The candidate must have knowledge of Machine learning. c. Bachelor's students *already graduated* in Computer Science/ ECE or related streams & having exceptional credentials may also consider applying (*Cut-off: 80% Marks/ CGPA >8*). They should have good prior knowledge and hands on experience of ML.
Desirable Qualification:	Good written and spoken English, some experience of technical writing. *Candidates who are GATE/NET qualified will be given preference.*

Application Procedure:

- Candidates should email their CV to the PI (**vinay.chamola.nus@gmail.com**) by **31st December 2020** with subject of the mail as '*Application for JRF position – SICI Indo-Canada project'*.

- They should compulsorily fill in their details at https://forms.gle/VYFWCVGs8QGsE5dA9 (candidate should log into Gmail and then open this link in a new tab to fill in details)

- Shortlisted candidates will be informed through email for the Online interview (Skype/ Google meet).

- Students having their own funding and who wish to work on this project may feel free to contact the PI.

Notes:

1. *Selected candidate will be encouraged to join Ph.D. program of BITS-Pilani as per institute rules.*
2. For any queries regarding the position, please feel free to email the PI (Dr. Vinay Chamola).
3. The position mentioned is temporary and for the period of duration of the project (2 years).
4. If performance of candidate is found unsatisfactory, position can be terminated with 1-month notice.
5. The interview will be online.

Dr. Vinay Chamola (PI) (https://www.bits-pilani.ac.in/pilani/vinaychamola/profile)