

## ASIAN SMART CITIES RESEARCH AND INNOVATION NETWORK (ASCRIN) EXPRESSION OF INTEREST FOR JOINT PHD SCHOLARSHIP

**Applications are invited for the joint PhD program at BITS Pilani and La Trobe University, Australia**

### DESCRIPTION

The Asian Smart Cities Research and Innovation Network (ASCRIN) has been initiated by La Trobe University, Melbourne Australia, in partnership with premier research institutions in India.

**PhD position (01) in Computer Vision** is currently available with scholarship funding for students enrolled in a Joint PhD program at the Birla Institute of Technology and Science (BITS) Pilani, and La Trobe University. Candidates will be based at BITS Pilani, Pilani campus throughout his/her candidature and will have the opportunity to visit La Trobe University in Melbourne, Australia for typically one year during the PhD program.

**BENEFITS OF THE SCHOLARSHIP** For candidates enrolled in a Joint PhD between La Trobe University and BITS Pilani:

- BITS Pilani PhD fellowship: INR 37,000 – 42,000 pm.
- A stipend of AUD \$28,597 p.a. (2024 rate) for up to one year during a residency at a La Trobe University campus
- A La Trobe University Full-Fee Research Scholarship, covering tuition fee relief for up to four years at La Trobe University
- Return economy airfare between Delhi and Melbourne

### ASCRIN PROJECT DETAILS

**Project title:** Safety Zoning of Highways using Deep Learning & Satellite Imaging

**Project Team:** Prof. Poonam Goyal and Prof. Navneet Goyal – BITS Pilani | Prof. Wei Xiang and Prof. Aniruddha Desai – La Trobe University, Australia

<https://www.bits-pilani.ac.in/pilani/poonam-goyal/> | <https://www.bits-pilani.ac.in/pilani/navneet-goyal/>

**Summary:** We propose a Deep-Learning & Satellite Imaging based solution for safety zoning of national highways and expressways. This research intends to develop a deep learning-based mapping approach that leverages open data to learn from raw satellite imagery robust deep models able to predict accurate city-scale road safety maps at an affordable cost. The proposed zoning will open up pathways for significant technical advancements on navigation maps to warn drivers about the quality of the highways.

**Minimum and desirable qualifications needed:** M. Tech/M.E. in Computer Science/ IT/ Software Systems or equivalent degree.

How to Apply:

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Interested candidates, fulfilling the above requirements, can send the applications, giving detailed information about their educational qualifications, research experience and published research papers (if any), by **7<sup>th</sup> Feb 2024 (last date)**, to the Principal Investigator, **Prof. Poonam Goyal** via email: [poonam@pilani.bits-pilani.ac.in](mailto:poonam@pilani.bits-pilani.ac.in) with a Subject “**Application for PhD(ASCRIN)**”. Please note that only qualified and shortlisted candidates will be selected for interview. Details of the interview will be communicated via email.

**Poonam Goyal, Professor**

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