Indian Institute of Technology (Indian School of Mines), Dhanbad
The Office of Dean, Research & Development

Sanction No and Date: TTDF/6G/162 Dated:21/03/2025	**IIT (ISM) Dhanbad Project No.** SRDP 1176G	Date 28/07/2026

JRF position under the TTDF scheme of DBN (DoT) and assigned to TCOE India as the implementing agency by the competent authority.

The details are given below:

Position	Junior Research Fellow (JRF)
Number of Position (s)	01
Title of The Project	Silicon Photonic Chip-based N × N Photonic Switches for 6G and Beyond
Principal Investigator	**Prof. Devendra Chack,** Associate Professor, Department of Electronics Engineering, IIT(ISM) Dhanbad, Jharkhand 826004. Email: devendra@iitism.ac.in
Tenure of Project	The initial appointment will be for 1 year. The contract will be renewable, subject to satisfactory performance and project requirements. (Maximum two years or till the end of the project, whichever is earlier) Opportunity Highlights: JRF will have the chance to apply for a PhD position in the Department of Electronics Engineering, IIT (ISM) Dhanbad, following institute guidelines.
Job Description (in maximum of 100 words)	The project aims to design Silicon Photonic Chip-based N × N Photonic Switches for 6G and Beyond. Specifically, the project has the following goals: 1) To design an integrated Silicon Photonic N × N optical switch 2) To validate performance through simulation (FDTD/INTERCONNECT) 3) To prepare fabrication-ready layouts (PDK/KLayout) following foundry design rules. 4) Device and System-level Characterisation.
Essential Qualification	First Class or First Division with minimum 60% marks or equivalent CGPA in M. Tech. / M.E. / MS in Electronics / Electronics & Communication / Electronics & Telecommunication or related field [OR] B. Tech / B.E. or equivalent degree in Electronics / Electronics & Communication / Electronics & Tele-communication [OR] M.Sc in Electronics, [OR] M.Sc in Physics (Specialization in Electronics/Photonics). **The candidate must have qualified GATE/NET.**
Desirable Qualification	The candidate should have basic knowledge of Photonics Integrated Circuits, Silicon Photonics and Communication systems, Microelectronics, Optoelectronics, Nanotechnology, Optical Communication, VLSI or Physics from a recognized institute. Furthermore, the candidate should be good at ANSYS Lumerical and MATLAB.
Reservation/Relaxation Clause	Reservation and Relaxation for SC/ST/OBC/PH/Women candidates will be applicable as per the Government of India (GoI).
Age and Relaxation (if any)	35 years at the time of appointment. A relaxation in the upper age limit will be given to SC/ST/OBC (Non-creamy layer)/PH candidates as per GoI rule.
Fellowship	**Rs. 37,000/-** for the 1st and 2nd Year, and **Rs. 42,000/-** for 3rd Year
Last Date & Time	**17th August 2026 (Monday), 04:00 PM**. Online Application link https://forms.gle/q7W8stecam4XLn7o6 Interested candidates are requested fill the online application (as per the link provided) and must attach all supporting documents (e.g. self-attested copies of educational qualifications, experience certificate, age proof, valid cast certificate (if applicable), copies of publications, awards, recommendation letter, CV with Photo, GATE/NET/National level examination qualification certificate, etc.).
Shortlisted candidates will be informed on the date of interview. Mere possession of minimum qualification does not guarantee an invitation to the interview. Candidates will be shortlisted based on their merit and as per the requirement of the project. All candidates should make their own arrangements for their stay at Dhanbad, if required. No TA/DA will be paid to attend the interview.	

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