



INDIAN INSTITUTE OF TECHNOLOGY PATNA  
BIHTA PATNA-801106  
RESEARCH & DEVELOPMENT UNIT

Advertisement No: R&D/719,724,762,766,817/EE/284

DATED: 24.05.2023

Applications are invited through the online form only for the following assignments in a purely time-bound research project undertaken in this institute. **Interviews will be conducted online.**

**Date of Online Interview: 12<sup>th</sup> June 2023 at 11AM. Last date of filling application form: 10<sup>th</sup> June 2023.**

Interested and eligible persons may apply through the online form through the link given below.

**Online Application Link:** <https://forms.gle/iMFGR4ygMnjxEZvH8>

<b>Serial Number : 01</b>					
<b>Name of The Research Project</b>			<b>Ultra low Jitter, Low Spur and Low power Frequency Synthesizers for High Speed Data Converters, Wi-Fi 7, 5G and beyond Communication Systems</b>		
<b>Project Number as per IIT Patna Record: 817</b>					
<b>Name of the temporary assignment</b>	<b>Number of Posts</b>	<b>Duration of the Post</b>	<b>Name of the sponsoring Agency</b>	<b>Consolidated Fellowship</b>	<b>Contact Information</b>
Junior Research Fellow	One (01)	Initially for 1 year, may be extended for maximum 3 years or till the end of the project, whichever is earlier	Science and Engineering research Board (SERB)	Rs. 31000/- for the first two years followed by Rs. 35,000/- for the 3 <sup>rd</sup> year	Dr. Yatendra Kumar Singh, Department of Electrical Engineering, IIT Patna,  Email: yatendra@iitp.ac.in Tel.: 06115-233092.
<b>Qualifications &amp; Experience</b>	<ul style="list-style-type: none"><li>➤ For candidates with M.Tech./ME/MS qualifying degree in VLSI/Communication/Electronics/Electrical/Instrumentation: first class (minimum 60% marks or 6.50 CPI) in M.Tech./ME/MS with GATE/NET qualifications and first class (minimum 60% marks or 6.5 CPI) in B.Tech./BE, 12<sup>th</sup> and 10<sup>th</sup> class.</li><li>➤ For candidates with B. Tech./BE as a qualifying degree in the following selected disciplines (Electronics/Electrical/Instrumentation), 70% marks or 7.50 CPI in B.Tech./BE from institutes other than IITs/IISc and 7.0 CPI in B.Tech. from IITs and IISc with the first</li><li>➤ class (minimum 60% marks or 6.5 CPI) in 12<sup>th</sup> and 10<sup>th</sup> class.</li><li>➤ The age should not exceed 28 years for a candidate with BE/B.Tech degree as the highest qualification and 32 years for a candidate with ME/M.Tech/MS degree as the highest qualification.</li><li>➤ Relaxations for SC/ST/OBC/women/PD will be given as per the GoI rules.</li><li>➤ Experience of CMOS circuit design and CAD tools like Cadence will be given preference</li></ul>				



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Serial Number : 02					
Name of The Research Project			Integrated Photonic Artificial Neural Networks (INPATIENT)		
Project Number as per IIT Patna Record: 719					
Name of the temporary assignment	Number of Posts	Duration of the Post	Name of the sponsoring Agency	Consolidated Fellowship	Contact Information
Junior Research Fellow	One (01)	Initially for 1 year, may be extended for maximum 3 years or till the end of the project, whichever is earlier	Department of Science and Technology, International Division, under India Italy Call for Significant Research Scheme	INR. 31,000/- + HRA for 1 <sup>st</sup> and 2 <sup>nd</sup> Year and INR. 35,000 + HRA for 3 <sup>rd</sup> year	Dr. Sumanta Gupta, Dept. of Electrical Engineering, IIT Patna,  Email: sumanta@iitp.ac.in Tel.: +91-6115-233096
<b>Qualifications &amp; Experience</b>	<p>A candidate must satisfy one of the following criteria:</p> <ul style="list-style-type: none"> <li>➤ Candidates having M.Tech./M.E. degree in Signal Processing &amp; Communication Networks, Communication Systems or Electronics and Communication Engineering or relevant specialization, with a minimum CPI of 6.5 or 60% of marks.</li> <li>➤ Bachelor's degree in Electrical Engg., Electrical and Electronics Engg., Electronics Engg., Electronics and Telecommunication Engg. or Electronics and Communication Engg or relevant branch (from any Institute other than IITs) with a minimum CPI of 8.0 or 75% of marks.</li> <li>➤ Bachelor's degree in the areas mentioned in point B from an Indian Institute of Technology (IIT) in a relevant area with a minimum CPI of 7.0.</li> <li>➤ Master's degree in Science in a relevant area with a minimum CPI of 7.5 or 70%.</li> </ul> <p>Preference shall be given to the GATE/NET qualified candidates having experience in the field of Communication Engg., Signal processing. Candidates <b>knowing the design, simulation, and characterization of integrated photonic devices/systems</b>, optical communication, Machine learning, and Deep learning will be given preference. Additionally, it will be preferred if the candidate is familiar working with COMSOL, and Lumerical software.</p>				



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<b>Serial Number : 03</b>					
<b>Name ofTheResearchProject</b>			<b>Channel State Information based Joint Localization and Activity Recognition using Deep Learning Methods</b>		
<b>Project Number as per IIT Patna Record: 762</b>					
<b>Name of thetemporaryassignment</b>	<b>Numberof Posts</b>	<b>DurationofthePost</b>	<b>Nameofthesponsoring Agency</b>	<b>ConsolidatedFellowship</b>	<b>Contact Information</b>
Junior Research Fellow	One (01)	Initially for 1 year, may be extended for maximum 3 years or till the end of the project, whichever is earlier	Department of Science and Technology (Govt. of India)	INR. 31,000/- + HRA	Dr. Sudhir Kumar, Dept. of Electrical Engg., IIT Patna,  Email: sudhir@iitp.ac.in Tel.: 06115 233 025
<b>Qualifications&amp;Experience</b>	M.E./M.Tech in EE/ECE/CSE or related specialization with qualified Graduate Aptitude Test in Engineering (GATE) examination score  The candidate desirably should have M.E./M.Tech. degree with a minimum CPI of 6.5 out of 10 or 60 % of marks. The upper age limit for applying for the JRF position shall be 32 years. Relaxations for SC/ST/OBC/women/PD will be given as per the Gol rules. Working/research experience in the field of Signal Processing, Communication Networks and/or Machine/Deep Learning will be given preference. The candidate will be encouraged to apply for PhD admission at IIT Patna.				



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<b>Serial Number : 04</b>					
<b>Name of The Research Project</b>		<b>Massive MIMO High Gain Beam Scanning Millimeter Wave Antenna Using Digital Metasurface with Controlled Bits for Fifth Generation (5G) Communication</b>			
<b>Project Number as per IIT Patna Record: 724</b>					
<b>Name of the temporary assignment</b>	<b>Number of Posts</b>	<b>Duration of the Post</b>	<b>Name of the sponsoring Agency</b>	<b>Consolidated Fellowship</b>	<b>Contact Information</b>
Junior Research Fellow	One (01)	6 months	Science and Engineering Research Board (SERB)	Rs. 31000/- per month plus 8% HRA as per Gol rules	Dr. Amit Kumar Singh, Dept. of Electrical Engineering, IIT Patna,  Email: amitks@iitp.ac.in Tel.: 06115-2338960
<b>Qualifications &amp; Experience</b>	<ul style="list-style-type: none"> <li>➤ M.Tech./M.E/M.S. degree in a Engineering/Technology (Relevant Disciplines: Electronics and Communication, RF and Microwave Engineering, and similar) from a recognized University, with a minimum CPI of 6.0 or 60% of marks. Candidate must have valid GATE/NET score.</li> <li>➤ Work/research experience in the field of Microwave and Millimeter Wave Technology, Antenna and Microwave measurements, and Software such as CST Microwave Studio, HFSS, ADS, and MATLAB will be given preference.</li> <li>➤ Bachelor's degree in Engineering/Technology in a relevant discipline with minimum CPI of 8 or 75% of marks with valid GATE score.</li> </ul>				



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<b>Serial Number : 05</b>					
<b>Name ofTheResearchProject</b>		<b>CCTV Storage Media Recovery and Enhancement Software: AI powered Cloud-capable Blockchain-based Digital Forensic Chain of Custody</b>			
<b>Project Number as per IIT Patna Record: 766</b>					
<b>Name of thetemporaryassignment</b>	<b>Numberof Posts</b>	<b>DurationofthePost</b>	<b>Nameofthesponsoring Agency</b>	<b>ConsolidatedFellowship</b>	<b>Contact Information</b>
Senior Research Fellow (SRF)	One (01)	2 Years	Ministry of Home Affairs, Govt of India	Rs. 35000 permonth	Dr. Maheshkumar H Kolekar, Department of Electrical Engineering,IITPatna,  Email: <a href="mailto:mahesh@iitp.ac.in">mahesh@iitp.ac.in</a> Tel.: 06115-233043.
<b>Qualifications&amp;Experience</b>	M E/ M Tech in EE/ECE/CSE/ any other related branch Knowledge of Python programming language is desirable.				

**General Terms and Conditions:**

- The selected candidate will be allowed to apply for PhD program of the EE department at IIT Patna following proper procedure.
- The shortlisted candidates will be informed accordingly to appear for the online interview. The incomplete application will not be considered.
- **Online Interview Link: Intimated via email to the shortlisted candidates**

**Deputy Registrar, R&D Unit**