

इंडियन इंस्टीट्यूट ऑफ टेक्नोलॉजी दिल्ली
हौज खास, नई दिल्ली -110016
(औद्योगिक अनुसंधान एवं विकास इकाई)
INDIAN INSTITUTE OF TECHNOLOGY DELHI
Hauz Khas, New Delhi-110016
(Industrial Research & Development Unit)

No. IITD/IRD/RP04191G/ 188 241

Advertisement No.: IITD/IRD/169/2023

Dated:22/08/2023

Applications from Indian nationals are invited for Project Appointment under the following project. Appointment shall be on contractual basis with consolidated pay, renewable yearly or upto the duration of the project, whichever is earlier. निम्नलिखित परियोजना के तहत भारतीय नागरिकों से आवेदन आमंत्रित किए जाते हैं। अर्पॉइंटमेंट, अनुबंधित आधार पर समेकित वेतन, नवीकरणीय वार्षिक या परियोजना की अवधि तक, जो भी पहले हो, के साथ होगा

Objective: Trajectory/torque estimation using EEG/EMG signal for exosuit/exoskeleton control, BCI system prototyping Expected profile: PhD in relevant field with Adequate knowledge of linear algebra, Biomedical signal processing and Machine learning.

Brief description: The project involves design and development of an exosuit, a soft wearable robotic device, for upper limb augmentation. The work is interdisciplinary and brings together researchers from various disciplines including control, brain-machine interface, biomechanics, materials, machine learning, and human physiology. Your role will be estimation of trajectory/torque using EEG/EMG signal for the exosuit/exoskeleton control, and BCI system prototyping.

Why you would like to join: 1. This is a one-of-a-kind project in the country on EEG based control for exosuit/exoskeleton. 2. You will have an opportunity to interact with an interdisciplinary team of scientists having background as diverse as soft robotics, machine learning, biomechanics, signal processing and control theory.

Title of the Project	Wearable soft robotics for Upper Limb Muscle Power Augmentation with BMI interface (DRDO JATC Project) (RP04191G)	
Funding Agency	DRDO, Ministry of Defence, New Delhi	
Name of the Project Investigator	Prof. Sitikantha Roy (PI) / Prof. Lalan Kumar (Co-PI) [email of PI: lkumar@ee.iitd.ac.in]	
Deptt./Centre	Department of Applied Mechanics / Department of Electrical Engineering	
Duration of the Project	Upto:16/12/2025	
Post (s)	Consolidated fellowship / Pay-slab	Qualifications
Research Associate (1)	Rs.54000/-p.m. plus HRA @ 24%	1) Ph.D. in biomedical engineering, electrical engineering, neuroscience, computer science or related fields Or 1 st class MTech/ME/MSc (Engg) in Computer Science/Electrical Engineering/Mechanical Engineering/Biomedical or related field with experience in EEG signal analysis, BCI, proficiency in MATLAB and Python, with at least 3 years of experience and good publication record in SCI Journal. 2) Adequate knowledge of linear algebra, Biomedical signal processing and Machine learning. 3) High proficiency in Matlab and Python are mandatory. 4) Experience with acquisition and analysis of EEG/EMG. 5) Experience in BCI or other neural prosthetics application. 6) Working knowledge of ADS1299 evaluation board, Opensim, EEGLab, Brainstorm and Fieldtrip are plus point 7) Working experience with EEG based (Upper/Lower Limb) exosuit/exoskeleton control will be plus point. NB: Good candidate with PhD thesis submitted, can also apply.

The post may be downgraded as per discretion of the Selection Committee if none of the candidate is found suitable for the post.

The candidates who are interested to apply for the above post should download Form No. IRD/REC-4 from the IRD Website (<http://ird.iitd.ac.in/rec>) of IIT Delhi and submit the duly filled form with complete information regarding educational qualifications indicating percentage of marks/division, details of work experience etc. by e-mail with advertisement No. on the subject line to Prof. Lalan Kumar at email id: recruitment.jatc@gmail.com and cc it to lkumar@ee.iitd.ac.in

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IIT Delhi reserves the right to fix higher criteria for short-listing of eligible candidates from those satisfying advertised qualification and requirement of the project post and their name will be displayed on web link (<http://ird.iitd.ac.in/shortlisted>) alongwith the online interview details. Only short-listed candidates will be informed for online interview. In case any clarification is required on eligibility regarding the above post, the candidate may contact Prof. Lalan Kumar at email id: lkumar@ee.iitd.ac.in

5% relaxation of marks may be granted to the SC/ST Candidates. In case of selection of a retired/superannuated government employee, his/her salary will be fixed as per prevailing IRD norms. अनुसूचित जाति / अनुसूचित जनजाति के उम्मीदवारों को अंकों की 5% छूट दी जा सकती है. एक सेवानिवृत्त सरकारी कर्मचारी के चयन के मामले में उसका वेतन वर्तमान आईआरडी मानदंडों के अनुसार तय किया जाएगा। The last date for submitting the completed applications by e-mail is 13/10/2023 by 5.00 p.m.

AP 21/10/2023
सहायक कुलसचिव, आईआरडी

वितरण

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- Webmaster, IRD : To put advertisement at IITD website.
- Notice Boards
- Advertisement file
- Prof. Sitikantha Roy, PI, Department of Applied Mechanics / Prof. Lalan Kumar, Co-PI, Department of EE
- Copy to Chairperson, DRC/CRC