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 up to the duration of the project, whichever is earlier.

Brief description: This project involves the 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 is to design and develop learning-based control systems for soft wearable robots.

Why you would like to join: 1. You will have an opportunity to interact with an interdisciplinary team of scientists having a background as diverse as soft robotics, machine learning, biomechanics, signal processing, and control theory. 2. This is a cutting-edge project in the country on soft neuro robotics and control and Actuation on wearable robotics.

<table>
<thead>
<tr>
<th>Title of the Project</th>
<th>Wearable soft robotics for Upper Limb Muscle Power Augmentation with BMI interface (DRDO JATC Project) (RP04191G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Agency</td>
<td>DRDO, Ministry of Defence, New Delhi</td>
</tr>
<tr>
<td>Name of the Project Investigator</td>
<td>Prof. Sitikantha Roy [email of PI: <a href="mailto:sroy@am.iitd.ac.in">sroy@am.iitd.ac.in</a>]</td>
</tr>
<tr>
<td>Dept./Centre</td>
<td>School of Artificial Intelligence &amp; Department of Applied Mechanics</td>
</tr>
<tr>
<td>Duration of the Project</td>
<td>Upto:16/12/2025</td>
</tr>
<tr>
<td>Post (s)</td>
<td>Consolidated fellowship / Pay-slab</td>
</tr>
<tr>
<td>Research Associate (1)</td>
<td>Rs.47,000/-p.m. plus HRA @ 24%</td>
</tr>
</tbody>
</table>

Qualifications

Ph.D./ MD in Electrical/ Electronics/ Mechanical/ Biomedical/ Aerospace / Applied Mechanics/ Instrumentation/ Civil Engineering or equivalent degree with specialization in systems and control/ robotics (or relevant specialization) with first class (60%) at all the preceding degrees and certificates along with good publication record in Science Citation Indexed (SCI) Journal as per DST norms

OR

ME/MS/MTech in Electrical/ Electronics/ Mechatronics/ Mechanical/ Biomedical/ Aerospace/ Applied Mechanics/ Instrumentation/ Civil Engineering with first class (60%) or equivalent at all the preceding degrees and certificates, and having 3 years of research, teaching experience in Robotics/ Control/ Mechatronics systems design Integration, with at least one good publication in Science Citation Indexed (SCI) Journal.

Essential: Experience in smart materials, soft actuator modeling, tendon-sheath type actuator modeling and computational dynamics will be preferred. Familiarity with programming language in any of MATLAB/Python language is necessary and knowledge of any CAD design/FEM software (ABAQUS) is necessary.

Desirable skills: Background in controller development and enhancing electro-mechanical systems and soft mechatronic devices. Expertise or transferable skills for soft actuator modeling, machine learning, algorithm development etc. will be preferred. Expertise in mechanical fabrication of tendon-sheath type actuator and pneumatic actuators is highly desirable.

Responsibilities: Develop multi physics models for soft robotics actuators, tendon-sheath actuator, experimentation for actuator characterization, Integration computational code for control system implementation.
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. Sitikantha Roy at email id: recruitment.jatc@gmail.com and cc it to sroy@am.iitd.ac.in.

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. Sitikantha Roy at email id: sroy@am.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. 

The last date for submitting the completed applications by e-mail is 23/12/2022 by 5.00 p.m.

वितरण

- Head of the Deptt./Centres/Units : It is requested that the contents of the Above Advt. be brought to the notice of the staff working in your Deptt./Centre/Unit
- Webmaster, IRD : To put advertisement at IITD website.
- Notice Boards
- Advertisement file
- Prof. Sitikantha Roy, PI, School of Artificial Intelligence and Department of Applied Mechanics
- Copy to Chairperson, DRC/CRC