

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/RP04371G/ 222423

Advertisement No.: IITD/IRD/245/2023

Dated:11/12/2023

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

There is a vacancy for a Research Associate position in the area of repair and remanufacturing of aerospace grade metallic alloy by means of metal cold spray technique in my group. The candidate would be working under Prof Ayan Bhowmik and Prof Nitya Nand Gosvami. Metal cold spray is a coating technology that is focused on repair of high value damaged components especially in the aerospace industries. The technology presents with an efficient and cost-effective way of applying repair coatings on aerospace components and even with a possibility of desired functionalisation based on the end-application. In such coatings, besides a high quality of deposition and adhesion strength with the substrate is of prime importance, good surface properties such as wear resistance is also equally important. The structure of the cold spray coating (primarily Ni-based superalloys and Ti-alloys) would be analysed using advanced characterisation tools e.g. x-ray diffraction, Scanning and transmission electron microscopy, Raman spectroscopy etc. and properties to tested using three-point bend and uniaxial loading. **The day-to-day job responsibilities would include** a. Lead the team's research activity in this area. b. Conduct required fabrication, testing and characterisation c. It would be preferable, if the candidate could also carry out finite element-based modelling using commercial software packages d. Mentor 2/3 PhD students in the group and aid in writing original research articles and presenting in conferences. e. Deal with problems that may affect the achievement of research objectives and deadlines f. Carry out administrative tasks related directly to the delivery of the research.

Title of the Project	Repair of high value Al-alloys using cold spray technology (RP04371G)	
Funding Agency	Aeronautics Research & Development Board	
Name of the Project Investigator	Prof. Ayan Bhowmik [email ID: abhowmik@mse.iitd.ac.in]	
Deptt./ Centre	Department of Material Science & Engineering	
Duration of the Project	Upto:26/09/2025	
Post (s)	Consolidated Fellowship	Qualifications
Research Associate (1)	Rs.47,000/- per month plus 24% HRA	Ph D in Material Science and Engineering or Mechanical Engineering.

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. Ayan Bhowmik at email id: abhowmik@mse.iitd.a.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 test and or / interview details. Only short-listed candidates will be informed for online test and of / interview.** In case any clarification is required on eligibility regarding the above post, the candidate may contact to Prof. Ayan Bhowmik at email id: abhowmik@mse.iitd.a.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 26/12/2023 by 5.00 p.m.**

सहायक कुल्सचिव, आईआरडी

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. Ayan Bhowmik, PI, Department of Material Science & Engineering (DMSE)
Copy to Chairperson, DRC/CRC