CORRIGENDUM

Advertisement No.: IITD/IRD/122/2023


This refers to the released advertisement for the post of Research Associate-I under the sponsored research project entitled "Influence of hot-equal channel angular pressing (hot-ECAP) on the microstructure-mechanical properties optimization via stress-induced martensite in metastable Beta Ti alloys" (RP04463G) in operation under Prof. Suresh Neelakantan, Department of Material Science & Engineering of this Institute.

The consolidated pay-slab / fellowship of the Research Associate post may be read as Rs.47,000/- p.m. (consolidated) without HRA component @ 24% as notified earlier.

The other contents of the earlier released advertisement shall remain same.

Distribution

1. Head of the Deptt./Centres/Units ➔ It is requested that the corrigendum in respect of above Advt. be brought to the notice of the staff working in your Deptt./Centre/Unit

2. Notice Boards
3. Advertisement file
4. Prof. Suresh Neelakantan, PI, Department of Material Science & Engineering (DMSE)
5. Webmaster IRD ➔ To put corrigendum at IITD website.

Assistant Registrar, IRD
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.

About the Project: Microstructure modification is essential in achieving mechanical property improvements, specifically in metallic materials for engineering applications. One of the ways the modification can be achieved is through severe plastic deformation (SPD). SPD process intensifies the crystal lattice defects leading to higher dislocation density thus resulting in an exceptional grain refinement in the material. This enhances strength and toughness without any other coupled processes. Equal channel angular pressing (ECAP) is the most recommended SPD process. In general, SPD process on Ti alloys is complicated; however, it is possible to deform them by ECAP process-based thermo-mechanical treatment (TMT), while considering at elevated temperatures. This is referred as hot-ECAP process. The considered study would focus to increase the strength on metastable β-Ti alloys by grain refinement through hot-ECAP process. The unique advantage of this alloy is that they exhibit stressinduced martensitic phase transformation (SIMT) during deformation, leading to an additional plasticity and eventual increase in strength-ductility relation of the material. The main role of the RA would involve optimizing the hot-ECAP processing parameters to achieve maximum grain refinement in β-Ti alloys, and eventual microstructural and mechanical characterization to achieve enhanced strength-ductility combination using advanced tools e.g., hydraulic press involving temperature chamber, x-ray diffraction, Scanning and transmission electron microscopy, quasi-static/in situ mechanical testing etc. The day-to-day job responsibilities would include:

- Lead the team's research activity in this area.
- Conduct required fabrication, testing and characterization
- Mentor PhD/Master’s students in the group and aid in writing original research articles and presenting in conferences. Also, help writing new project proposals
- Deal with problems that may affect the achievement of research objectives and deadlines
- Carry out administrative tasks related directly to the delivery of the research.

<table>
<thead>
<tr>
<th>Title of the Project</th>
<th>Influence of hot-equal channel angular pressing (hot-ECAP) on the microstructure-mechanical properties optimization via stress-induced martensite in metastable Beta Ti alloys (RP0463G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Agency</td>
<td>Science and Engineering Board (SERB)</td>
</tr>
<tr>
<td>Name of the Project Investigator</td>
<td>Prof. Suresh Neelakantan [email ID:<a href="mailto:sureshn@iitd.ac.in">sureshn@iitd.ac.in</a>]</td>
</tr>
<tr>
<td>Deptt/ Centre</td>
<td>Department of Material Science &amp; Engineering</td>
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<tr>
<td>Duration of the Project</td>
<td>Upto:12/02/2026</td>
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<tr>
<td>Post(s)</td>
<td>Consolidated Pay-slab / Fellowship</td>
</tr>
<tr>
<td>Research Associate-I (1)</td>
<td>Rs.47,000/-p.m. plus HRA @ 24%</td>
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</tbody>
</table>

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. Suresh Neelakantan at email id:sureshn@iitd.ac.in

Contd..
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. Suresh Neelakantan at email id: sureshn@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% घुटनी जा सकती है। एक सेवानिवृत्त सरकारी कर्मचारी के घर्षण के मामले में उसका वेतन सर्वसाधारण आईआईडी मानदंडों के अनुसार तय किया जाएगा The last date for submitting the completed applications by e-mail is 05/07/2023 by 5.00 p.m.

It is requested that the contents of the Above Advt. be brought to the notice of the staff working in your Deptt./Centre/Unit.

To put advertisement at IITD website.

वितरण

- Head of the Deptt./Centres/Units
- Webmaster, IRD
- Notice Boards
- Advertisement file
- Prof. Suresh Neelakantan, PI, Department of Material Science & Engineering
- Copy to Chairperson, DRC/CRC