CORRIGENDUM

Advertisement No.: IITD/IRD/074/2022


This refers to the advertisement released for the post of Jr. Research Fellow under the sponsored research project entitled “Performance investigations of various biomass combustion devices and recommendations for further improvement” (RP04288N) in operation under Prof. S.K. Tyagi, Department of Energy Science and Engineering of this Institute.

The last date of receipt of applications for the released post is hereby extended till 15/05/2022.

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. S.K. Tyagi, PI, Department of Energy Science and Engineering
5. Webmaster IRD ➔ To put corrigendum at IITD website.
6. Dr. Harshita Bhatnagar, RD Coordinator (R&D) Wing
Introduction: In India, a large section of the total population, especially the rural households, use biomass (agricultural crop residues, wood chips, and animal dung cake) for cooking and heating needs, according to the National Sample Survey’s 64th report on Household Consumer Expenditure in India 2007-08. About 22% of the urban households are still depending on fuelwood as a source of energy to meet their cooking energy needs. An estimated 80% of the residential energy in India comes from biomass, much of it burnt in the traditional combustion devices called cookstoves (chulhas) which creates air pollution and hence, the adverse health and socio-economic implications. Every year, smoke from open fires and traditional stoves cause death of around 4.8 million people according to estimations from the World Health Organization (WHO, 2012). Also, the growing gap between availability and demand for firewood, coupled with the scarcity of fossil fuels, and the poor thermal performance and pollution caused by traditional stoves, has forced the technologies to focus their attention on improving the thermal efficiencies of these stoves and also to develop more efficient, smokeless stoves.

Job Profile: In the last few decades, developing countries including India have experienced a rapid depletion of natural forest resources that has resulted in hardship for the people living in rural areas, especially women and children who spend a considerable part of their time and energy in search of fuelwood and bio-fuels and often have to cover long distances. Besides, deforestation has also led to many negative ecological consequences. Under this project, there is a need to carry out the detailed thermal analysis of existing cookstoves and biomass burners already developed at IITD and other agencies and to improve them using basic heat and mass transfer analysis. Further, the numerical and computation tools like CFD and numerical methods could be used to improve the thermal performance and emission characteristics leading to non-sustainable burning of fuels viz. processes and unprocessed including wood, non-woody biomass. 2. Skill Required: Heat and Mass Transfer Analysis, Simulation (CFD), Writing of Research Articles, etc. The selected candidate should be able to carry out detailed studies of heat and mass transfer for the biomass combustion devices for cooking and heating applications. This includes the testing using standard (BIS, ISO, etc.) protocols following different procedures such as, WBT, KPT, CCT, etc. for data collection and data analysis, writing research articles. The study also includes possible interventions such as, automation for primary and secondary air flow rates into the biomass combustion devices, simulation using suitable software and other technical work related to the project.

<table>
<thead>
<tr>
<th>Title of the Project</th>
<th>Performance investigations of various biomass combustion devices and recommendations for further improvement (RP04288N)</th>
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</thead>
<tbody>
<tr>
<td>Funding Agency</td>
<td>Swami Samarth Electronics Pvt. Limited, Nashik, Maharashtra</td>
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<tr>
<td>Name of the Project Investigator</td>
<td>Prof. S.K. Tyagi [email ID: <a href="mailto:sudhirtiyagi@yahoo.com">sudhirtiyagi@yahoo.com</a>, <a href="mailto:tyagisk@iitd.ac.in">tyagisk@iitd.ac.in</a>]</td>
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<tr>
<td>Deptt/ Centre</td>
<td>Department of Energy Science and Engineering</td>
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<tr>
<td>Duration of the Project</td>
<td>Upto: 30/03/2023</td>
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<tr>
<td>Post(s)</td>
<td>Jr. Research Fellow (1)</td>
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<tr>
<td>Consolidated fellowship / Pay-slab</td>
<td>Rs.31,000/- p.m (consolidated)</td>
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<tr>
<td>Qualifications</td>
<td>M Tech (Thermal/Mechanical Engineering/Energy having min 75% of marks at B. Tech and M. Tech level) with GATE* qualification. Preferably having some experience in Simulation.</td>
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<td>*The requirement of GATE examination for the selection to the post of JRF/SRF may be relaxed for the candidates who have graduated from Centrally Funded Technical Institutes (CFTIs) with a CGPA of more than 8.000 (80% aggregate marks).</td>
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Contd...
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. S.K. Tyagi at email id:tyagisk@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) along with 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. S.K. Tyagi at email id sudhirtyagi@yahoo.com; tyagisk@iitd.ac.in 5% relaxation of marks may be granted to the SC/ST Candidates. In case of selection of a retired/supernumerary government employee, his/her salary will be fixed as per prevailing IRD norms. अनुसूचित जाति / अनुसूचित जनजाति के उम्मीदवारों को उनको की 5% चूट दी जा सकती है The last date for submitting the completed applications by e-mail is 18/04/2022 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
- Notice Boards
- Advertisement file
- Prof. S.K. Tyagi, PI, Department of Energy Science and Engineering
- Copy to Chaigerson, DRC/CRC
- Dr. Harshita Bhatnagar, RD Coordinator, (R&D) Wing

Sahayak Kshetrapal, Aide de Camp