

## CALL FOR JRF / SRF (under IMPACT program: BITS Pilani-Wipro Infrastructure Engg.)

## **Application Deadline: 30th October. 2024**

# Date: 15<sup>th</sup> October 2024

About: Department of Mechanical Engineering, BITS Pilani, in collaboration with Wipro Infrastructure Engineering under the IMPACT program invites 1position for JRF/SRF with attractive emoluments and grants

Position:	JRF / SRF	Number of Vacancy:	01
Project Title:	Zero leak cylinders	Project Tenure:	04 Year
Funding Agency:	Wipro Infrastructure Engineering.	Upper Age Limit	30 years as on 30 <sup>th</sup> October 2024
Fellowship:	37000 + 27% HRA per month (fellowship can be enhanced to 42000/- per month after two years with satisfactory progress review) + Contingency: 20000/- per year + Travel support: 20000/- per year		
Principal Investigator:	Prof. Mani Sankar Dasgupta, Co-PI: Prof. Suvanjan Bhattacharyya		
Project Overview	<ul> <li>Advanced Sealing Materials: Development of novel seal materials with enhanced durability, self-healing properties, or unique material combinations to improve longevity and leak prevention for Hydraulic cylinders</li> <li>Innovative Mechanical Designs: Investigation of design elements, fits, tolerances, and surface finishes that can further enhance sealing effectiveness.</li> <li>Sealing System Optimization: Exploring double, triple lip seals, metallic wiper seals, and other sealing mechanisms to prevent leaks and contamination over long-term use.</li> <li>Validation and Testing: Utilizing state-of-the-art field reliability and endurance testing equipment to validate proposed solutions.</li> </ul>		
Qualification:	<ul> <li>Graduates in Mechanical Engineering, Chemical Engineering, Materials Science, or related disciplines having a Master's degree in relevant discipline</li> <li>Strong motivation to do his/her PhD at BITS Pilani</li> <li>Candidates with a passion for solving real-world industrial challenges and an interest in Sealing technology, Tribology &amp; surface engineering, Smart composites, Self-healing material, Hydraulic systems, Machine Learning and Data Analytics and Mechanical design optimization.</li> <li>Prior experience in fluid mechanics, tribology, material science, or finite element analysis (FEA) is advantageous but not mandatory.</li> </ul>		

#### How to Apply:

Interested candidates should submit their latest updated 1-page CV, and a statement of purpose outlining their research interests as a single pdf file to [*dasgupta@pilani.bits-pilani.ac.in*] before 30<sup>th</sup> October 2024.

### Please note that only qualified and suitable candidates will receive call for online interview.

