



**BITS Pilani**

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Research & Innovation

## ONE PhD School Position

### Development of Novel Antibiofilm Surface Patterns by Vibration Assistance Micromachining Process and Evaluation of Their Antimicrobial Properties

**Campus: BITS-Pilani, Hyderabad Campus**

**Deadline: 20<sup>th</sup> August 2025 | Joining: At the earliest**

*Date: 12<sup>th</sup> August, 2025*

Applications are invited for **ONE** position of PhD Scholar on project, “**Development of Novel Antibiofilm Surface Patterns by Vibration Assistance Micromachining Process and Evaluation of Their Antimicrobial Properties**” under the supervision of **Prof. Kundan Singh** and **Prof. Kirtimaan Syal**.

Deserving candidates check the eligibility criteria and qualification process of the PhD program of BITS Pilani (<http://www.bitsadmission.com/phmain.aspx>).

<b>Scope of work</b>	<b>Essential Qualification</b>	<b>Desirable Qualification</b>
<ul style="list-style-type: none"> <li>Development of vibration assisted micromachining set-up for creation of surface pattern on metallic surface of Ti6Al4V with minimum or no burr.</li> <li>Testing of different surface patterns designs for microbial adherence, sliding motility, and antimicrobial properties.</li> <li>Predictions of a novel design for surface pattern using hybrid machine learning method based on the principle of AI and CNN.</li> </ul>	<ul style="list-style-type: none"> <li>ME/M.Tech with First class in Mechanical/ design/ manufacturing/ production, material science or Bio-Technology</li> <li>Age must be below 30 years as of the last date of application.</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge of machining</li> <li>Experience in biological/ bacterial testing</li> </ul>

**Fellowship:** ₹37,000 - ₹42,000 per month (based on the year of PhD and performance)

**Duration:** As per BITS Pilani norms (<http://www.bitsadmission.com/phmain.aspx>)

**Place of work:** BITS Pilani, Hyderabad Campus, Telangana

**Application process:** Please apply with **CV and Cover letter** (showing alignment and justification with the roles/responsibilities/requirements) using this form

<https://forms.gle/ay1Dhg8N6kEBYgLC9>

**Deadline: 20<sup>th</sup> August 2025**

Preliminary shortlisting will be based on resume and telephonic/audio-visual interview within a week of last date of application. For final interview, the candidate will be informed through e-mail for interview. No TA/DA will be provided in case of personal interview. For more details, please contact:

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