## I. Posts:

The faculty posts were sanctioned by the Ministry of Education under 4-Tier flexible faculty structure and there are **41** vacancies available across all departments/school under this 4-tier flexible faculty structure.

The requirement of posts in different departments and school are detailed below.

| Post   | Department/Stream  |  |  |
|--|--|--|--|
| Professor<br>(Pay matrix level 14A as per 7th CPC)                                     | Mathematics (MA)   |  |  |
| Associate Professor<br>(Pay matrix level 13A2 as per 7th CPC)                          | <ul> <li>School of Interdisciplinary Design and Innovation (SIDI)</li> <li>Physics (PH)</li> <li>Mathematics (MA)</li> </ul>   |  |  |
| <b>Assistant Professor Grade-I</b><br>(Pay matrix level 12 as per 7 <sup>th</sup> CPC) | <ul> <li>Computer Science and Engineering (CS)</li> <li>Electronics and Communication Engineering (EC)</li> <li>Mechanical Engineering (ME)</li> <li>School of Interdisciplinary Design and Innovation (SIDI)</li> <li>Mathematics (MA)</li> </ul> |  |  |
| Assistant Professor Grade-II<br>(Pay matrix level 11 as per 7 <sup>th</sup> CPC)       | <ul> <li>Computer Science and Engineering (CS)</li> <li>Electronics and Communication Engineering (EC)</li> <li>Mechanical Engineering (ME)</li> <li>School of Interdisciplinary Design and Innovation (SIDI)</li> <li>Mathematics (MA)</li> </ul> |  |  |
| Assistant Professor Grade-II<br>(Pay matrix level 10 as per 7 <sup>th</sup> CPC)       | <ul> <li>Computer Science and Engineering (CS)</li> <li>Electronics and Communication Engineering (EC)</li> <li>Mechanical Engineering (ME)</li> <li>School of Interdisciplinary Design and Innovation (SIDI)</li> <li>Mathematics (MA)</li> </ul> |  |  |

## II. Detail of Educational Qualification and Experience Required for the Posts Under Four Tier Flexible Structure:

| S.No. | Designation, Pay<br>Band and Academic<br>Grade Pay                                 | Essential<br>Qualification | Relevant<br>Experience  | Other Essential<br>Requirements   | Additional<br>Desirable<br>Requirements  |
|-------|--|----------------------------|---|---|--|
| 1.    | Assistant Professor<br>Grade II  | Ph.D.                      | None  | None  | One publication in an SCI journal.   |
|       | Pay Matrix level 10  |                            |   |   |  |
|       | (Rs. 70,900 – 98,200)  |                            |   |   |  |
| 2.    | Assistant Professor-<br>Grade II   | Ph.D.                      | 01 year.  | <ul> <li>One paper accepted for<br/>publication in SCI journal.</li> </ul>  | <ul> <li>Two papers in SCI<br/>Journals or one patent;</li> </ul>  |
|       | Pay Matrix level 11  |                            |   |   | may be based on Ph.D<br>work.  |
|       | (Rs. 71,000 – 1,17,200)  |                            |   |   |  |
| 3.    | Assistant Professor-<br>Grade I<br>Pay Matrix level 12.<br>(Rs. 1,01,500-1,67,400) | Ph.D.                      | 03 years after Ph.D.<br>or<br>06 years total (not<br>counting Ph.D.<br>enrolment period) after<br>obtaining M.<br>Tech./M.E./M.Des.<br>degree.  | <ul> <li>02 papers in SCI Journals<br/>outside Ph.D. work.</li> <li>One ongoing sponsored<br/>project for candidates<br/>from academia.</li> <li>Two experiments or<br/>computational projects<br/>added to teaching<br/>laboratories where<br/>appropriate.</li> </ul>   | <ul> <li>One Ph.D. Supervision<br/>ongoing;</li> <li>01 patent;</li> <li>Experience in industry or<br/>R&amp;D lab of repute;</li> <li>M.Tech., M.Des. M.Sc.<br/>or B.Tech., B.Des.<br/>project supervision on<br/>live industrial problems.</li> </ul>                            |
| 4.    | Associate Professor<br>Pay Matrix level 13A2.<br>(Rs. 1,39,600-2,11,300)           | Ph.D.                      | <ul> <li>06 years after Ph.D.<br/>or</li> <li>09 Years total (not<br/>counting Ph.D.</li> <li>enrolment period) out<br/>of which 03 years<br/>should be after Ph.D.</li> <li>Three years at the<br/>level of Assistant<br/>Professor with AGP<br/>of Rs.8000 or its<br/>equivalent in 7th CPC<br/>at a reputed<br/>university, R&amp;D Lab<br/>or relevant industry.</li> </ul> | <ul> <li>04 Papers in SCI journals<br/>after Ph.D.;</li> <li>One Ph.D. guided as sole<br/>or principal supervisor<br/>plus one continuing.</li> <li>Two projects ongoing or<br/>one ongoing plus one<br/>completed.</li> <li>Two experiments or<br/>computational projects<br/>added to teaching<br/>laboratories where<br/>appropriate.</li> <li>Academic outreach<br/>activity equivalent to two<br/>self-financed short-term<br/>courses.</li> </ul> | <ul> <li>01 or more patents;</li> <li>supervising two or more<br/>students for Ph.D.;</li> <li>Strong liaison with<br/>industry;</li> <li>Offering courses through<br/>application of ICT.</li> </ul>  |
| 5.    | <b>Professor</b><br>Pay Matrix level 14A.<br>(Rs. 1,59,100-<br>2,20,200)           | Ph.D.                      | <ul> <li>10 years after Ph.D.<br/>or</li> <li>13 years total (not<br/>counting Ph.D.<br/>enrolment period) out<br/>of which 07 years are<br/>to be after Ph.D.;</li> <li>At least four years to<br/>be at Associate<br/>Professor level with</li> </ul>   | <ul> <li>Two Ph.D. degrees<br/>guided in Career as sole<br/>or principal supervisor.</li> <li>The following during the<br/>past 04 years.</li> <li>i. 03 papers in SCI<br/>Journals;</li> <li>ii. One High value<br/>sponsored or<br/>consultancy project;</li> <li>iii. Academic outreach<br/>activity equivalent to two</li> </ul>  | <ul> <li>One or more Patents,</li> <li>Supervised more than<br/>three students for Ph.D.</li> <li>Preparing E- Learning<br/>material.</li> <li>At least one self-<br/>financed short-term<br/>course offered every<br/>year.</li> <li>Strong liaison with<br/>industry.</li> </ul> |

|  | AGP of Rs.<br>9500/level 13A2 in an<br>Institute of repute | self-financed courses<br>offered as coordinator<br>and main teacher;<br>iv. Two experiments or<br>computational design<br>projects added to<br>teaching laboratories<br>where appropriate. | <ul> <li>Offering significant<br/>support to Institute<br/>management;</li> <li>High value sponsored or<br/>consultancy projects.</li> </ul> |
|--|--|--|--|
|--|--|--|--|

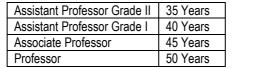
## III. Eligible Degrees and Research Areas

| Discipline   | Eligibility criteria  |
|--|---|
| Computer Science and<br>Engineering                  | <ul> <li>B.E./ B.Tech. in Computer Science and Engineering/Information Technology/ Artificial Intelligence/<br/>Data Science/ Cyber Security/ Electronics and Communication Engineering or relevant<br/>stream/degree.</li> <li>M.E./ M.Tech./ M.Des.(Computer Science and Engineering/ Information Technology/<br/>Communication Systems/ Artificial Intelligence/ Data Science/ Cyber Security or relevant stream/<br/>degree).</li> <li>Ph.D. Degree (Computer Science and Engineering or related topics).</li> </ul>  |
|  | <b>Research Area:</b> Machine Learning, Data Sciences, Computer Vision, Operating Systems, Computer Architecture, IoT, Computer Networks, Information Security, Cloud Computing, Theoretical CS, Software Engineering, Real Time Systems.   |
| Electronics and<br>Communication<br>Engineering      | <ul> <li>B.E./B.Tech. (Electrical Engineering/ Electrical and Electronics Engineering/ Electronics Engineering/ Electronics and Communication Engineering or relevant stream/ degree).</li> <li>M.E./M. Tech./M. Des. (Electrical Engineering/ Electrical and Electronics Engineering/ Electronics Engineering/ Electronics and Communication Engineering or relevant stream/ degree).</li> <li>Ph.D. Degree (Electrical Engineering/ Electronics Engineering/ Electronics and Communication Engineering/ Electronics and Communication Engineering/ Electronics and Communication Engineering or relevant stream/ degree).</li> <li>Ph.D. Degree (Electrical Engineering/ Electronics Engineering/ Electronics and Communication Engineering or relevant topics).</li> <li>Research Area: Communication Systems, RF &amp; Microwave Engineering, RF/ Microwave Circuits, Antennas and Systems, Signal and Image Processing, VLSI Circuit &amp; System Design, VLSI Testing &amp; Verification</li> </ul> |
| Mechanical Engineering                               | <ul> <li>B.E./B.Tech. (Mechanical Engineering/ Aerospace Engineering/ Automobile Engineering/<br/>Industrial Engineering/ Electrical/ Electronics Engineering/ Instrumentation / Production/<br/>Manufacturing Engineering/ Mechatronics/ CAD/CAM/ CIM/ Computer Science Engineering/ AI &amp;<br/>Robotics or relevant stream/ degree).</li> <li>M.E./ M. Tech./ M. Des. (Mechanical Engineering/ Aerospace Engineering/ Automobile<br/>Engineering/ Industrial Engineering/ Instrumentation / Production/ Manufacturing Engineering/<br/>Mechatronics/ CAD/CAM/ CIM/ AI &amp; Robotics or relevant stream/degree).</li> <li>Ph.D. (Mechanical Engineering/ AI &amp; Robotics or relevant topics).</li> </ul> <b>Research Area:</b> Futuristic research areas in Manufacturing, Robotics, AI, Data Science, Mechatronics,<br>Materials and Engineering design, and Thermal and fluid sciences and related areas. CFD, Heat<br>Transfer, Multi phase flows Metal forming and Joining                      |
| School of Interdisciplinary<br>Design and Innovation | <ul> <li>B. Des., M. Des. and Ph.D. in Design OR Engineering graduates with at least one degree in Design at Masters or PhD level in the subject area of Product Design or relevant areas OR</li> <li>Ph.D. in Science/Engineering with practical experience in Product Design &amp; Development.</li> <li>Research Area: Aesthetics, Form and sketching, CAD and digital sketching/ modeling, Human factors and ergonomics, Visual communication, Interaction design, Graphic design, Kinetic art, CAE in Product Design, Bio-inspired Design, impact and crashworthiness, lightweighting, sustainable products from wastes</li> </ul>   |

|             | Bachelor and Master Degree in Mathematics/ Statistics/ Applied Mathematics/ Industrial                |
|-------------|---|
| Mathematics | Mathematics & Scientific Computing along with Ph.D. in Mathematics/ Statistics or relevant areas.     |
|             | Research Area: Algorithmic graph theory, Statistics / Data Sciences, Probability theory, Differential |
|             | Equations, Real / Complex Analysis, Algebra, Numerical methods  |
|             | • B.Sc. and M.Sc./ M.Sc. (Tech)/ B.Tech. in Physics, Applied Physics, Materials Science/ M.Tech.      |
|             | (Solid State Technology)/ M.Tech. (Materials Science)/ M.Sc. Applied Optics/ Optoelectronics or       |
| Physics     | relevant stream/degree along with Ph.D. in Physics or relevant areas.                                 |
|             | Research Area: Raman Spectroscopy.  |



1. Age limit:



However, for exceptional candidates age may be relaxed at the discretion of the scrutiny committee with the approval of Director.