



# TULSIRAMJI GAIKWAD-PATIL COLLEGE OF ENGINEERING & TECHNOLOGY

Wardha Road, Nagpur - 441108  
Accredited with NAAC A+ Grade & NBA Accredited (EE, ME, CE & ECE)  
Approved by AICTE, New Delhi, Govt. of Maharashtra



(An Autonomous Institution Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)

## Academic Cell

### Specilization/Domain Specific Skills

Sr. No	Name of Department	Domain Specific Skill Required/Requirement	Specilization
1	Information Technology	Power BI, Data analysis using Python, Machine Learning and Deep Learning	M.Tech in Computer Science / Artificial Intelligence / Data Science / Information Technology
2	Electrical Engg.	MATLAB / Simulink, ETAP, PSCAD, AutoCAD Electrical, Industrial IoT (IIoT) for Electrical Systems, Electric Vehicle (EV) Technology	M. Tech (IPS), M.Tech (PEPS), M.Tech (Power Electronics), M.Tech (EVT), M. Tech (Electrical Drives)
3	Mechanical Engg.	Solid Works, Ansys Fluent, CREO	ME/MTech (Design, Thermal, CAD/CAM) first Class
4	Civil Engg.	Autocad 2D/3D, Staad Pro, 3D Max, Revit, BIM	M.Tech (Geotechnical, Transportation, Environmental, Structural Engineering)
5	Data Sceince	Python, SQL & NoSQL, JAVA, Deep learning & AI, Apache Spark, Power BI, MLOps	M.Tech in Computer Science / Artificial Intelligence / Data Science / Information Technology
6	Electronics & Communication Engg.	Embedded Systems, VLSI Design, Wireless Communication (5G/6G), Industrial Automation, IoT & Robotics	M.Tech. in Microelectronics & VLSI Design / M.Tech. in Embedded System & IoT/M.Tech. in Communication System/Wireless Communication/ M.Tech. in Signal Processing & Machine Learning/ M.Tech. in RF & Microwave Engineering/ M.Tech. in Control & Automation/ Robotics/ M.Tech. in Electronic System/ Design Technology
7	Aeronautical Engg.	Ansys Fluent, LS Dyna, CATIA V5, SolidWorks, Python, MATLAB, STK (Ansys)	Specialization in Aircraft Structures, Aerodynamics, Aerospace, Avionics, Propulsion
8	Biotechnology	Bioinformatics, Molecular Biology Techniques (PCR, Gel Electrophoresis), Fermentation Technology, Cell & Tissue Culture, Bioprocess Engineering, Genetic Engineering, Immunotechnology, Biostatistics, Python / R for Bio-data Analysis, Industrial Biotechnology	PhD or M.Tech in Bioinformatics / Computational Biology, Genetic Engineering, Biomedical Engineering, Biochemical Engineering, Bioprocess Engineering
9	Computer Sceince & Engg.	Full Stack Development, DevOps, Python, SQL & NoSQL, JAVA, Deep learning & AI, Apache Spark, Power BI, MLOps	M.Tech in Computer Science / Artificial Intelligence / Data Science / Information Technology
10	Artificial Intelligence & Machine Learning	Computer Science, Information technology, Machine Learning specialization, Deep Learning specialization, Generative AI specialization	M.Tech in Computer Science / Artificial Intelligence / Data Science / Information Technology, Skills Required -Machine Learning/Deep Learning/Generative AI
11	Master of Business Administration /	Business Analytics	MBA in Business Analytics
12	Master of Computer Application / Bachelor of Computer Application	Artificial Intellegence and Machine Learning, Data Science, Tableau, React_JS, Node_JS, Devops, Gen AI, Advance Java	Minimum MCA with Knowledge of Aatifical Intellegence and Machine Learning, Mern Full Stack Developer
13	Basic Science &	MA (English ) First Class	
14	Applied Physics	MSC (Physics) First Class	
15	Applied Chemistry	MSC (Chemistry) First Class	
16	Applied Mathematics	MSC (Mathematics) First Class	
17	IDEA Lab (Technical)	Robotics Mechatronics	BE Mechanical first Class, BE ECE first Class



**Director Academics**  
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## Administrative Office

### ESSENTIAL QUALIFICATION

Sr. No.	Name of the Program	Post	Essential Qualifications
1.	Engineering and Technology	Assistant Professor	<p><u>For Engineering Subjects:</u> - BE/B.Tech. and M.E./M.Tech in relevant subject with first class or equivalent either in BE/B.Tech. or M.E./ M.Tech.</p> <p><u>For Science and Humanities Subjects:</u> - A Master's degree with First Class or equivalent in a relevant subject and, must have cleared the National Eligibility Test (NET) conducted by the UGC or the CSIR, or a similar test accredited by the UGC, like SLET / SET.</p>
2.		Associate Professor	<p>1) BE/B.Tech. and M.E./M.Tech in relevant subject with first class or equivalent either in BE/B.Tech. or M.E./ M.Tech.</p> <p>AND</p> <p>2) At least total 6 research publications in SCI journals / UGC / AICTE approved list of journals.</p> <p>AND</p> <p>3) Minimum of 8 years of experience in teaching / research / industry out of which at least 2 years shall be Post Ph.D. experience.</p>
3.		Professor	<p>1) Ph. D. degree in relevant field and First class or equivalent at either Bachelor's or Master's level in the relevant branch.</p> <p>AND</p> <p>2) Minimum of 10 years of experience in teaching / research / industry out of which at least 3 years shall be at a post equivalent to that of an Associate Professor.</p> <p>AND</p> <p>3) At least 6 research publications at the level of Associate Professor in SCI journals AICTE approved list of journals and at least 2 successful Ph.D. guided as Supervisor UGC / Co-supervisor till the date of eligibility of promotion.</p> <p>OR</p> <p>At least 10 research publications at the level of Associate Professor in SCI journals AICTE approved list of journals till the date of eligibility of promotion.</p>



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### ESSENTIAL QUALIFICATION

Sr. No.	Name of Program	Post	Essential Qualifications
1.		<b>Assistant Professor</b>	<p>1) Bachelor's Degree in relevant discipline and Master's Degree in relevant discipline with First Class or equivalent and two years of professional experience after acquiring the degree of Master's degree.</p> <p>2) Besides fulfilling the above qualifications, the candidate must have Cleared the National Eligibility Test (NET) conducted by the UGC or the CSIR, or a similar test accredited by the UGC, like SET or who are or have been awarded a Ph. D.</p> <p>3) Degree in accordance with the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degree) Regulations, 2009 or 2016 and their amendments from time to time as the case may be exempted from NET/SET</p>
2.	<b>Bachelor of Business Administration (BBA) / Master of Business Administration (MBA)</b>  <b>&amp;</b> <b>Bachelor of Computer Applications (BCA) / Masters of Computer Applications (MCA)</b>	<b>Associate Professor</b>	<p>1) Bachelor's Degree in relevant discipline and Master's Degree in relevant discipline with First Class or equivalent and two years of professional experience after acquiring the degree of Master's degree.</p> <p>2) Besides fulfilling the above qualifications, the candidate must have Cleared the National Eligibility Test (NET) conducted by the UGC or the CSIR, or a similar test accredited by the UGC, like SET or who are or have been awarded a Ph. D.</p> <p>3) Degree in accordance with the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degree) Regulations, 2009 or 2016 and their amendments from time to time as the case may be exempted from NET/SET</p> <p style="text-align: center;">AND</p> <p>4) At least total 6 research publications in SCI journals / UGC / AICTE approved list of journals.</p> <p style="text-align: center;">AND</p> <p>5) Minimum of 8 years of experience in teaching / research / industry out of which at least 2 years shall be Post Ph.D. experience.</p>
3.		<b>Professor</b>	<p>1) Ph. D. degree in relevant field and First class or equivalent at either Bachelor's or Master's level in the relevant branch.</p> <p style="text-align: center;">AND</p> <p>2) Minimum of 10 years of experience in teaching / research / industry out of which at least 3 years shall be at a post equivalent to that of an Associate Professor.</p> <p style="text-align: center;">AND</p> <p>3) At least 6 research publications at the level of Associate Professor in SCI journals AICTE approved list of journals and at least 2 successful Ph.D. guided as Supervisor UGC / Co - supervisor till the date of eligibility of promotion.</p> <p style="text-align: center;">OR</p> <p>At least 10 research publications at the level of Associate Professor in SCI journals AICTE approved list of journals till the date of eligibility of promotion.</p>



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