Wainganga College of Engineering & Management

Near Gumgaon Railway Station, Dongargaon, Wardha Road. Nagpur

Ph. No. +91 07103 202007   Website: www.wcem.in

(An ISO 9001:2008 Certified College)

Approved by AICTE, DTE, Govt. of Maharashtra, Affiliated to RTM Nagpur University, Nagpur

PROGRAM OUTCOMES(POs)

The programme is aimed at developing competencies, skills and abilities amongst at the time ofgraduates. They shall be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science,engineeringfundamentals, and an engineering specialization to the solution ofcomplexengineeringproblems.

2. Problem analysis: Identify, formulate, review research literature, and analyze complexengineering problems reaching substantiated conclusions using first principles ofmathematics, natural sciences, and engineering sciences

3. Design/development of solutions: Design solutions for complex engineering problems anddesign system components or processes that meet the specified needs with appropriateconsideration for the public health and safety, and the cultural, societal, andenvironmentalconsiderations.

4. Conduct investigations of complex problems: Use research-based knowledge and researchmethods including design of experiments, analysis and interpretation of data, andsynthesisof the information to provide valid conclusions

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, andmodern engineering and IT tools including prediction and modeling to complex Engineeringactivities with an understanding of the limitations

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assesscietal, health, safety, legal and cultural issues and the consequent responsibilitiesso relevantto the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineeringsolutions in societal and environmental contexts, and demonstrate the knowledge of,andneed for sustainable development

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities andnorms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader indiverse teams, and in multidisciplinary settings.

10. Communication: Communicate effectively on complex engineering activities with theengineering community and with society at large, such as, being able to comprehendandwrite effective reports and design documentation, make effective presentations, andgiveand receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of theengineering and management principles and apply these to one's own work, as a Memberand   leader   in   a   team,   to   manage   projects   and   in multidisciplinaryenvironments

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage inindependent and life-long learning in the broadest context of technological change.

DEPARTMENT OF ELECTRICAL ENGINEERING	
PSO-1	Demonstrate industrial practices learned through internship and solve the live problems of industries
PSO-2	Utilize skills in transforming ideas into hardware project and to protect intellectual property rights
PSO- 3	Propose innovative solutions in the area of power systems and electric drives

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING	
PSO-1	To build students problems solving capabilities by applying technical knowledge in the field of computer science & engineering.
PSO-2	To make student capable to get self employment or to employee or to employee or to give their contribution in the field of research to achieve their long term goal
PSO- 3	To develop graduates who will use the soft skills, teamwork and leadership qualities to make their society enhance in all aspects.

DEPARTMENT OF INFORMATION TECHNOLOGY	
PSO-1	To build students problems solving capabilities by applying technical knowledge in the field of computer science & engineering.
PSO-2	To make student capable to get self employment or to employee or to employee or to give their contribution in the field of research to achieve their long term goal
PSO- 3	To develop graduates who will use the soft skills, teamwork and leadership qualities to make their society enhance in all aspects.

DEPARTMENT OF CIVIL ENGINEERING	
PSO-1	Construction Planning and Designing: Perform optimal Civil engineering construction, planning and designing activities of desired quality at optimal cost.
PSO-2	Construction Execution and Maintenance: Execute Civil engineering construction and maintenance using relevant materials and equipment.
PSO- 3	Construction Entrepreneurship:Utilized skills in qualifying competitive exams and demonstrating leadership toemerge as potential entrepreneur

DEPARTMENT OF MECHANICAL ENGINEERING	
PSO-1	Demonstrate industrial practice learned through internship and solve the industrial problem using technical knowhow acquired.
PSO-2	Apply skill in multi disciplinary area of renewable energy, automotive, agricultural & heat transfer.
PSO- 3	Utilize skill in developing innovative prototype concept enabling to protect intellectual property rights.

DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING	
PSO-1	The ability to absorb and to apply fundamental knowledge of core Electronics and Telecommunication Engineering subjects in the analysis, design , and development of various type of integrated electronics system as well as to interpret and synthesize the experimental data leading to valid conclusions.

PSO-2	Competence in using electronic modern IT tools (both software and hardware) for the design and analysis of complex electronic systems in furtherance to research activities.
PSO- 3	Excellent adaptibility to changing work environment , good interpersonel skills as a leader in a team in appreciation of professional ethics and societal responsibilities.