Department of ITCA
Madan Mohan Malaviya University of Technology Gorakhpur

VISION

To become pioneer in the field of Information Technology and Computer Applications at global level by imparting quality education with excellent teaching-learning processes and research methodologies.

MISSION

Mission-1 To offer state-of-art education in Information Technology to keep pace with industry requirements.

Mission-2 To promote quality research in the field of IT and its applications.

Mission-3 To ensure the holistic development of the students by inculcating value based socially committed professionalism.

B. Tech (Information Technology)

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO-1 To inculcate the fundamental knowledge of Mathematics, Science & Engineering disciplines for developing the ability to formulate, solve and analyse the problems of Information Technology field and to provide them the skills for the pursuit of under-graduate studies, research & development, and higher education.

PEO-2 To provide the understanding of the prerequisite of the software, technical aspects, and design for coming up with the novel engineering solutions and efficient product developments.

PEO-3 To assist the students in the pursuit of the successful career by adopting the ethical practices and social responsibility.

PEO-4 To provide students the technical as well as soft skills required by the national as well as international organizations.

PEO-5 To elevate cognizance in the students towards the lifelong learning and to inculcate the ethical and moral values.

PEO-6 To give students the knowledge of the contemporary technologies, practical experiences, and possibilities in the field of Information Technology to provide the multidisciplinary knowledge to develop the team spirit and leadership qualities by working on multidisciplinary projects.
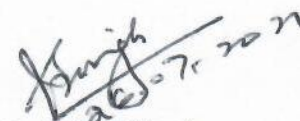
PROGRAMME OUTCOMES (POs)

PO-1 The students will develop the ability towards the application of fundamental knowledge of hardware, computing, algorithms, and programming for developing the solutions of the critical problems of computer applications. **(Rudimentary analytical skills)**

PO-2 The students will be able to model and carry out the experiments by using the fundamental knowledge of computing techniques and derive the conclusions by analysing and interpreting the data. **(Computing skills)**

PO-3 The students will be able to analyze, design, implement and assess a computer-based information system, procedure, module, or program to fulfill the requirements along with the consideration of economical, privacy and reliability constraints. **(Innovative skills)**

PO-4 The students will be able to perform efficiently in teams. **(Team spirit)**

PO-5 The students will develop the analytical skills to critically analyze, recognize, formulate, and devise solutions to the computing problems by using the adequate computing skills and knowledge. **(Problem solving skills)**

PO-6 The students will have the awareness towards the professional, legal, and ethical practices. **(Professional integrity)**

PO-7 The students will have the efficient speaking and written/interpersonal communication skills. **(Oral and written communication skill)**

PO-8 To impart the exhaustive education in the students required to understand and analyze the local and global consequences of computing solutions ranging from individuals and organizations to society. **(Computing consequences assessment skills)**

PO-9 The students will develop the realization of the requirements and the ability to indulge in maintaining professional growth and lifelong learning. **(Continuing education cognizance)**

PO-10 The students will have the cognition towards the current issues and problems of the society. **(Societal awareness)**

PO-11 The students will possess the ability to utilize the knowledge of innovative programming and computing equipment required for the problem-solving tasks. **(Pragmatic skills)**

PO-12 The students will be able to apply the design and evolution precepts in the development of software and hardware systems. **(Software hardware interface)**

PROGRAMME SPECIFIC OBJECTIVES (PSOs)

PSO-1   To produce strong Engineers with the latest knowledge and thinking.

PSO-2   To produce the strong engineers having decision-making, design, and development abilities.

PSO-3   To produce Engineers to serve the IT industries with strong analytical bent of mind, research, and innovative thinking.

PSO-4   To promote the students for higher studies and lifelong learning.

PSO-5   To develop the skill of implementing the interdisciplinary application software projects to meet the demands of industry requirements using latest tools and technologies.

PSO-6   To develop analytical skills in the Engineers for analysing the societal needs and providing the novel solutions through technological based research.

PSO-7   To get the knowledge for appearing in the National and International level Exams GATE, Public-Private sectors, and further higher studies in India and abroad.

PSO-8   To develop professional skills and latest technical knowledge time to time by conducting Board of Studies (BOS), updating syllabus to keep pace with the demands of industries for maximising the employability.

Prof. S. P. Singh
Department of ITCA

Head
Department of
I.T. & Computer Application

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Master of Computer Application (MCA)

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO-1 To inculcate the knowledge of computer fundamentals for developing the ability to formulate, solve and analyse the problems of computer applications and to provide the skills for the pursuit of post-graduate studies and research & development.

PEO-2 To nurture the understanding of prerequisites, technical aspects, and designs for coming up with the novel and efficient solutions for the software development.

PEO-3 To assist the students in the pursuit of successful career by adopting the ethical and moral practices.

PEO-4 To inculcate technical and soft skills required by the national as well as international organizations.

PEO-5 To elevate cognizance in the students toward the lifelong learning with ethical and moral values.

PEO-6 To nurture the students with knowledge of contemporary technologies, practical experiences, and possibilities in the field of computer applications that develops the team spirit and leadership qualities by working on different kinds of projects.

PROGRAMME OUTCOMES (POs)

PO-1 The students will develop the ability towards the application of fundamental knowledge of computing, algorithms, and programming for developing the solutions of the problems of computer applications. **(Rudimentary analytical skills)**

PO-2 The post-graduating students will be able to model and carry out the experiments by using the knowledge of computing techniques and derive the conclusions by analysing and interpreting the data. **(Computing skills)**

PO-3 The students will be able to design, analyze, implement, and assess a computer-based information system, procedure, module, or software to fulfill the requirements along with the consideration of economical, privacy and reliability constraints. **(Innovative skills)**

PO-4 To possess knowledge for functioning as a member or team leader effectively in software project development. **(Team spirit)**

PO-5 The students will develop the analytical skills to analyze, recognize, formulate, and devise solutions to the computing problems by using the adequate computing skills and knowledge. **(Problem solving skills)**

PO-6 The students will have the awareness towards the professional, legal, ethical, and moral practices. **(Professional integrity)**

PO-7 The students will have the efficient speaking and written/interpersonal communication skills. **(Oral and written communication skill)**

PO-8 To understand and analyze the local and global consequences of computing solutions ranging from individuals and organizations to the society. **(Computing consequences assessment skills)**

PO-9 To be able to learn from mistakes, adapt new developments, and participate in continuing education opportunities to foster personal and organizational growth and develop the ability to indulge in maintaining professional growth and lifelong learning. **(Continuing education cognizance)**

PO-10 To have the cognition towards the current issues and the problems of the society. **(Societal awareness)**

PO-11 To possess the ability to utilize the knowledge of innovative programming and computing equipment required for the problem-solving tasks. **(Pragmatic skills)**

PO-12 To have the ability to apply the design and evolution precepts in the development of software systems as interface for hardware. **(Software- hardware interface)**

PROGRAMME SPECIFIC OBJECTIVES (PSOs)

PSO-1 To produce the software professionals with decision-making, design, development, and analysis skills having knowledge of latest technology.

PSO-2 To produce software professionals who can apply engineering principles and practices to provide software solutions.

PSO-3 To nurture with knowledge of designing and developing solutions in the areas of networking and web-based computational systems under realistic constraints.

PSO-4 To develop the strong analytical ability, innovative thinking to make them worth for IT industry.

PSO-5 To develop the skill of implementing the interdisciplinary application software projects to meet the demands of industry requirements using latest tools and technologies.

PSO-6 To promote the PG students for research work, higher studies, and lifelong learning.

PSO-7 To develop professional skills and latest technical knowledge time to time by conducting Board of Studies (BOS), updating syllabus to keep pace with the demands of industries for maximising the employability.

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M. Tech (Information Technology)

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO-1   To develop the ability in PG students to formulate, solve and analyse the problems related to Information Technology field.

PEO-2   To produce postgraduate (PG) engineers who are ready to contribute research & development (R&D) effectively to the advancement of Information Technology applications.

PEO-3   To engage in professional practices to promote the development of innovative systems and optimized solutions.

PEO-4   To work collaboratively on multidisciplinary projects and exhibit high levels of professional and ethical values within organization and society.

PEO-5   To enhance skills and adapt new computing technologies for attaining professional excellence and carrying research.

PEO-6   To provide students the technical as well as soft skills required by the national as well as international organizations.

PEO-7   To elevate cognizance in the students towards the lifelong learning and to inculcate the ethical and moral values.
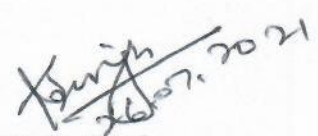
PROGRAMME OUTCOMES (POs)

PO-1 To apply mathematical, scientific, and information technology knowledge to develop system for applied engineering and be able to critically analyse, formulate, evaluate, synthesize, model, and integrate technologies to devise solutions to the computing problems.

PO-2 To model and carry out the research and experiments by using the fundamental knowledge of computing techniques and derive the conclusions by analysing and interpreting the data.

PO-3 To provide optimized solutions by formulating and implementing analytical tools for upcoming issues in the field of Information Technology and possess the ability to utilize the knowledge of innovative programming and computing equipment required for the problem-solving tasks.

PO-4 To design and develop a system to meet desired needs within social areas and demonstrate integrity, ethical behaviour, commitment to code of conduct of professional practices and standards.

PO-5 To work upon unfamiliar problems through investigative studies, research and contribute to the development of technical knowledge, intellectual property and demonstrate the independent learning by adopting research pursuits.

PO-6 To transfer technology effectively on broadly defined engineering needs of community & society and be able to comprehend and write effective technical reports, presentations, and software tools.

PO-7 To possess knowledge for functioning as a member or team leader effectively in software project development considering multidisciplinary environments.

PO-8 To learn reflectively from mistakes, adapt new developments, and participate in continuing education opportunities to foster personal and organizational growth and develop the ability to indulge in maintaining professional growth and lifelong learning.

PO-9 To use the techniques, skills, and modern engineering tools, including simulation and modelling for engineering needs and to have the efficient speaking skill and written/interpersonal communication skills.

PO-10 To understand contemporary issues in providing technological solutions for sustainable development considering impact on economic, social, and global issues and thereby contribute to the welfare of the society.

PROGRAMME SPECIFIC OBJECTIVES (PSOs)

PSO-1   To produce Post Graduate Engineers with the decision-making, and design/development skills using knowledge of latest technology.

PSO-2   To produce engineers, who can apply engineering principles and practices to provide software solutions.

PSO-3   To produce engineers who could design and develop Network, Mobile and Web-based computational systems under realistic constraints.

PSO-4   To produce engineers to serve the IT industries with strong analytical bent of mind, research, and innovative thinking.

PSO-5   To develop the skill of implementing the interdisciplinary application software projects to meet the demands of industry requirements using latest tools and technologies.

PSO-6   To promote the PG students for further research work, higher studies, and lifelong learning.

PSO-7   To develop professional skills and latest technical knowledge time to time by conducting Board of Studies (BOS), updating syllabus to keep pace with the demands of industries for maximising the employability.

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