Chandigarh Engineering College-CGC Landran, Mohali Department of Electronics and Communication Engineering

Programme Outcomes (POs) for Undergraduate Courses

- 1. Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- 2. Problem Analysis: Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- 3. Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.
- 4. Conduct investigations of complex problems: use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.
- **5. Modern Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- 6. The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.
- 7. Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
- **8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
- **9. Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.
- 10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.
- 11. Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- 12. Life-long Learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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CGC, Landran, Mohali

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Programme Specific Outcomes (PSOs) for Undergraduate Courses

PSO1. Ability to provide solutions to societal problems in the field of Electronics & Communication Engineering by extrapolating the fundamental knowledge of electronic devices, circuits, embedded & Communication systems.

PSO2. Understand the latest technologies and ability to design/improve products or systems along with creating career option in reputed companies or as an entrepreneur, technocrats and an enthusiasm for higher studies.

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Programme Outcomes (POs) for Postgraduate Courses

- 1. Ability to apply the knowledge of science, mathematics, and engineering principles for developing problem solving attitude.
- 2. Ability to identify, formulate and solve engineering problems in the broad areas like Systems Design using communication and networking platforms and tools. Explore recent developments in areas like optical communication, satellite communication, wireless communication, networking, RF-microwave, antennas, measurements and standards in communication.
- 3. Ability to understand and use different software tools for Design, Analysis and Verification in the domain of communication and networking. System results are obtained through progressive steps such as Design entry, Synthesis, Functional and Timing Simulation.
- **4.** Ability to design and conduct experiments, analyze and interpret data, imbibe programming skills for development of simulation experiments.
- 5. Ability to function as a member of a multidisciplinary team with sense of ethics, integrity and social responsibility.

Programme Specific Outcomes (PSOs) for Postgraduate Courses

PSO1. Ability to provide solutions to societal problems in the field of Electronics & Communication Engineering by extrapolating the fundamental knowledge of Communication Networks Antennas Systems, Nano Electronics, Signal Processing Remote Sensing, Innovative Research and Ethical values.

PSO2.Understand the latest technologies and ability to design/improve products or systems along with creating career option in reputed companies or as an entrepreneur, technocrats with an aptitude for research and higher education in the field of Electronics and Communication Engineering.

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