## ***General Outcomes for BME Program* (*Level A*)**

PO 1. Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science, and mathematics.

PO 2. Develop and conduct appropriate experimentation and/or simulation, analyze and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions.

PO 3. Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development.

PO 4. Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues and risk management principles.

PO 5. Practice research techniques and methods of investigation as an inherent part of learning.

PO 6. Plan, supervise and monitor implementation of engineering projects, taking into consideration other trades requirements.

PO 7. Function efficiently as an individual and as a member of multi-disciplinary and multicultural teams.

PO 8. Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary tools.

PO 9. Use creative, innovative, and flexible thinking and acquire entrepreneurial and leadership skills to anticipate and respond to new situations.

PO 10. Acquire and apply new knowledge, and practice self, lifelong and other learning strategies.

## **Specialization Outcomes for BME Program (*Level B*)**

PO 11.Model and analyze a biomedical engineering and energy conversion component, sub-system, and system, for a specific application; identify and apply the appropriate tools required for modeling and analysis.

PO 12. Measure and assess the performance of a biomedical engineering and energy conversion component, sub-system, and system, under specific conditions using computational facilities and techniques, and measuring instruments to evaluate its suitability for a specific application.

PO 13. Use software packages pertaining to biomedical engineering and energy conversion systems; identify the software appropriate for the purpose of simulation, analysis, design, and/or control of a specific application.

PO 14. Plan and manage engineering activities during diverse implementation phases of the biomedical engineering and energy conversion equipment, sub-systems, and systems; prepare and present relevant technical reports.

PO 15. Investigate the defects and failures of components, systems, and processes based on appropriate fault diagnosis methodology, software tools and/or measuring instruments.

PO 16. Integrate components and sub-systems to build up an assigned system with specific requirements considering compatibility constraints.