

## STUDENT OUTCOMES VS ABET LEARNED CAPABILITIES

ABET Student Outcomes		IET Student Outcomes	
1	an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;	VII	Install, troubleshoot, and maintain electrical AC and DC motors, generators, and variable frequency drives.
		VIII	Install, configure, calibrate, and troubleshoot pressure, temperature, level, and flow instrumentation.
		IX	Configure, troubleshoot, and optimize Proportional-Integral-Derivative (PID) control loops.
		X	Use the fundamentals of pump and valve operation to troubleshoot final element issues.
		XI	Utilize the fundamentals of fluid dynamics and thermodynamics to troubleshoot and maintain process control associated with industrial plants.
		XIII	Utilize the fundamentals of networks and digital communications to troubleshoot and maintain distributed plant automation and Supervisory Control and Data Acquisition (SCADA) systems.
2	an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;	VI	Design and troubleshoot circuits for motor controls and associated devices.
		XII	Design, implement, and troubleshoot Programmable Logic Controllers (PLC) programs and associated Human Machine Interface (HMI) applications for industrial processes.
3	an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature	V	Create schematics to document electrical, electronic, and process control systems.
4	an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results	III	Utilize test equipment to troubleshoot and analyze electrical, electronic, and instrumentation related circuits.
		IV	Analyze alternating current (AC) and direct current (DC) electronic circuits and logic fundamentals.
5	an ability to function effectively as a member of a technical team.	I	Demonstrate safe work practices on industrial equipment.
		II	Work and communicate effectively in a diverse team environment.

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