



STUDENT WORKFORCE DEVELOPMENT PROGRAM

A photograph of a student with dark hair tied back, wearing safety glasses and a blue lab coat, working on a circuit board. The student is focused on the task, with their hands visible as they work. The background is slightly blurred, showing other students in a lab setting. A large yellow curved graphic element is overlaid on the left side of the image.

**Preparing Students for Industry
Ready Workforce**



An Industry-ready workforce

Higher education in many parts of the world still lacks a practical training approach and awareness of the latest technologies. For example, new college graduates joining the electronics manufacturing industry in India find themselves regularly making critical decisions that could have an impact on the end product. However, challenges confronted on the shop floor are not necessarily part of the

theoretical curriculum of the university or technical institute where they received their education.

When young technicians and engineers join a company, they need time to thoroughly understand the production and quality processes. IPC is dedicated to making it easier for new employees to learn these needed skills. An office was set up in India in 2010 and has

been instrumental in providing more than 13,000 certifications while connecting with more than 500 electronics manufacturing companies there. This has led to an initiative to train college students through IPC's workforce development courses.

A Unique Training Opportunity

An important Memorandum of Understanding (MoU) was signed on Aug. 4, 2022, between IPC India and the Vidya Vikas Institute of Engineering and Technology (VVIET), in Mysuru, Karnataka. IPC India Executive Director Gaurab Majumdar and VVIET Secretary Kaveesh Gowda signed the MoU in the presence of students; Dr. John W. Mitchell, IPC president and CEO; Sanjay Huprikar, IPC president of Europe and South Asia operations; and David Bergman, IPC vice president, standards and technology. The signing ceremony took place at the Integrated Electronics Manufacturing and Interconnection (IEMI) event, organized by IPC India, in Bengaluru, Karnataka.

Last fall, 11 final-year students in VVIET's Electronics Diploma course were selected to take the IPC Electronics Assembly for Operator (EAO) course. The project's short-term internship focused on practical training, regular student interaction and evaluation, and industry exposure. To ensure that students didn't miss their regular classes, IPC conducted sessions on Fridays and Saturdays over a three-month period. The students' dedication and enthusiasm helped them successfully complete the program.

This initiative was supported by IPC member companies in Mysuru—Kaynes, Vinyas, and Cyient—where the staff contributed significantly by providing practical training for the students. They endorse the EAO course syllabus as important for technicians and operators who are new to the industry. It meets the needs of students interested in joining EMS companies.

Experienced trainers—Mr. CS Nagaraj, Master IPC Trainer (MIT), based in Bengaluru, and Ms. Padmavathy, Certified IPC Trainer (CIT), based in Mysuru—administered EAO training to students. They not only trained the students but instilled the importance of contract manufacturing and assembly in the overall growth of the electronics sector. The students saw that operators are valuable to the production process and each one makes an important contribution in developing high-quality and reliable products. Such orientation helps new technicians understand the industry and their job role and solidifies their interest in staying longer at the company.

The 11 students who successfully completed the EAO course received certificates, soon received job offers, and were successfully placed in electronics manufacturing companies with the basic knowledge of how to do the job because of their IPC training.





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“Talent shortages remain one of the most difficult challenges for the electronics manufacturing service (EMS) sector and could even threaten to stall reshoring to geographies like Asia and India,” said John Mitchell. “I am excited about current manufacturing opportunities in India. IPC skill development programs in India will benefit employers as well as employee retention and upskilling.”

“It is a matter of great pride for our association with IPC as an institutional member,” said Amulya Mohapatra, director of skill development at VVIET. “We are proud and privileged that this unique training program supported our students in electronics assembly skills and with employment opportunities. Industry companies told us they appreciated that our students are truly ready to work. It gives us immense satisfaction that all the students are placed in appropriate job roles in different EMS industries.”

Thejas K, a student who completed the program, said, “The course was very effective, with six days of internship followed by practical experience. The course taught us to understand best practices, reached our expectations, and helped to build our career while increasing our confidence level.”

Members of the industry speak highly of the program. Sharath Kumar Bhat, senior vice president at Kaynes Technology, said, “This kind of workforce training

provides knowledge and gives ideas to the students about what industries are looking for exactly. Once they are placed, they see and understand easily. This makes it easier for the industry and helps us to hire the right candidates who have already been exposed to this terminology.”

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Electronics manufacturing has been growing quite significantly in India, and IPC supports the industry and government there by providing resources that will help electronics manufacturers to build electronics better through a better trained workforce. 🇮🇳

