

MEMS & Microelectronics = notable practice

Subject: MEMS & Microelectronics paid internship & Bachelor degree program

MicroElectroMechanical Systems (MEMS) is a technology that consists of electronic components and mechanical structures built on a very small scale. Microelectronics is the integration, assembly, and engineering of multiple electronic components, MEMS devices, and printed circuit boards (PCBs) that form a functioning circuit or product.

LCCC, a subrecipient of this consortium grant, offers a degree which is hands-on and tailored by the microelectronics industry to prepare participants to work as an operator, technician, engineering tech, assembler, and lab tech in the fields of PCBs and electronic assembly, microelectronics, MEMS sensors, biomedical, and semiconductor fabrication. The training takes place in a large cleanroom.

Under this grant, LCCC launched TRAIN OH, an earn and learn model piloted with the MEMS program which requires a paid internship with 300 hours of work experience to earn this associate degree. Companies throughout Northeast Ohio provide the paid internships with intern wages ranging from \$10/hour - \$14/hour. Recent graduates from this program earn a starting wage of \$17/hour - \$22/hour in Northeast Ohio. Ohio Labor Market Data indicates that wages for graduates with an associate degree can reach \$31/hour.

This program has proved so valuable that LCCC has started the application with Ohio Department of Higher Education for an applied baccalaureate degree in MEMS. It is unique for a community college to offer a full baccalaureate degree in this field. An important feature of the 4-year degree is its affordability. Tuition for LCCC's entire bachelor's degree in MicroElectronic Manufacturing is estimated to be about \$15,000. This affordability factor coupled with the quality of the curriculum and value provided by the paid internship will make this program even more attractive. The bachelor's degree should present opportunities for higher wages with high job placement rates. Ohio Labor Market Data suggests that Process Engineers have potential to earn more than \$40/hour.

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