



## [BEST-IN-CLASS] SIGNATURE AREA

With leading researchers and facilities for additive manufacturing, micro- and nano-manufacturing, and sensor-enabled intelligent manufacturing, **Advanced Manufacturing** at Missouri S&T is well-positioned to develop into a world-class research enterprise.

### CRITICAL TO ECONOMIC DEVELOPMENT

Advanced manufacturing is critical to economic development in Missouri and the nation. Here's why:

- **Jobs for Missourians.** Twenty-three percent of Missouri's workers hold jobs in advanced manufacturing-related occupations.
- **Jobs for America.** In 2012, 10 percent of all jobs in the U.S. were in the manufacturing sector.
- **A strong national economy.** U.S. manufacturing accounts for 12 percent of gross domestic product, 70 percent of private R&D spending, and 86 percent of exports.
- **Tremendous return on investment.** Every dollar spent on manufacturing in the U.S. adds another \$1.48 to the economy; this is the highest multiplier of any economic sector.
- **High-paying jobs.** In 2011, the average U.S. manufacturing worker earned \$77,060 annually, compared to the industry average of \$60,168.
- **The key to the future.** Advanced manufacturing ranks No. 1 in the science and technology priorities for the fiscal year 2014 federal budget.

### REINVENTING MANUFACTURING – DIGITALLY

Missouri S&T is one of 23 university partners in a national initiative to reinvent manufacturing through Digital Labs. The initiative was announced in February 2014 by President Obama as part of the National Network for Manufacturing Innovation. Relying on the expertise of universities like Missouri S&T, Digital Labs will accelerate innovation and transition of technology to U.S. manufacturing enterprises.

### EXCEPTIONAL FACULTY AND FACILITIES

Missouri S&T faculty are among the nation's best in this emerging field, and with this emphasis on Advanced Manufacturing as a signature area, the university is recruiting new faculty members to build upon a strong foundation. The university also has state-of-the-art research equipment for additive manufacturing, laser processing, metal casting, composites manufacturing and materials characterization, as well as three industrially relevant national research centers: the Center for Aerospace Manufacturing Technologies, Peaslee Steel Manufacturing Research Center, and a site of the NSF Industry-University Cooperative Research Center in Intelligent Maintenance Systems.