Abstract: The Four Pillars of Manufacturing Engineering

Dr. Christopher P. Pung, Grand Valley State University
The Four Pillars of Manufacturing Engineering

Used with permission “The Four Pillars of Manufacturing Engineering essentially differentiates the unique character of the manufacturing, manufacturing engineering and manufacturing engineering technology disciplines. It defines the standard for advanced manufacturing topics, and provides a body of knowledge concept with which all those engaged in advanced manufacturing education can align. Developed by the Society of Manufacturing Engineers (SME) through its Center for Education, the four pillars model is derived from the ABET accreditation criteria for manufacturing engineering programs and builds on the topics in the SME body of knowledge for the certification of manufacturing engineers and manufacturing technologists. The concept of the four pillars encompasses: 1) Materials and manufacturing processes; 2) Product, tooling, and assembly engineering; 3) Manufacturing systems and operations; and 4) Manufacturing competitiveness.” This poster will list topics included in the four pillars and a how they support manufacturing engineering.