



The NAIT Shell Manufacturing Centre (NSMC) was created in 2006 to assist Alberta industries improve their business processes by providing productivity solutions using both time-tested and innovative technology, manufacturing expertise, and practical education, in a collaborative environment.

The stakeholders envisioned a centre that would be the leader in manufacturing solutions and productivity enhancement training services in the province of Alberta.

“The NAIT Shell Manufacturing Centre is helping businesses like ours be leaders in operational excellence, creating the state-of-the-art processes needed to help the world meet its energy needs, in a sustainable way, for decades to come,” says Brian Straub, President, Shell Canada.

Supported by Western Economic Diversification (WED), Alberta Innovation & Science (AI&S), Federal and Provincial Governments respectively, Shell Canada, Microsoft, Matrikon and NAIT, the Centre’s purpose is to help Alberta’s manufacturing industries, especially the small and medium enterprises, become globally competitive.

Mave Dhariwal, operations manager at the centre says survival in today’s competitive market place demands that organizations practice use of lean principles to improve their productivity by reducing waste. “This means practicing principle-centered leadership, developing capacity, and adopting innovative technological solutions to reduce costs while improving quality of their products and services. The NAIT Shell Manufacturing Centre has been designed to assist organizations do just that,” he says.

In May 2009, the centre received international recognition from the League for Innovation in the Community College **for its achievements in this very area.**

Believed to be the first of its kind in Canada, the centre was recognized for **its focus on productivity gains through process innovation and advanced technologies, as well as manufacturing solutions.** The League for Innovation is an international organization dedicated to catalyzing the community college movement.

NAIT Shell Manufacturing Centre Services

1. The Productivity Enhancement Services (PES) area offers more than 13 certificate programs aimed at increasing employee productivity in areas such as project leadership, team-building, conflict management, risk management, operations management, quality management, lean manufacturing etc. More than 450 industry staff, representing 50-60 Alberta organizations, return to NAIT every month throughout the year for training on productivity improvement.
 - a. Training programs listed under Productivity Enhancement Services can be easily customized to meet an organization’s staff development needs.
2. The Manufacturing Solutions area includes robotic welding, rapid prototyping, conveyor systems, automated storage and retrieval systems, hydraulics & pneumatics, CNC machines, metrology labs etc.
 - a. The Manufacturing Solutions area serves as a sandbox for industry to conduct applied research to determine suitability of these technologies for their operations, in a collaborative environment.



The Centre also includes nine high-tech laboratories with state-of-the-art equipment and software and its smart class rooms that enable instructors to integrate technology into their daily instructional plans.

In addition to the Centre's dedicated operating staff, it draws on specialized NAIT faculty, as well as more than 25 contract staff from industry, in order to conduct both training and applied research projects.

Productivity Enhancement Services (PES)

www.nait.ca/pes

- Fluid Power Certificate, Level – I
- Fluid Power Certificate, Level – II*
- Group Facilitation Skills
- Laser Cutter Operator
- Lean Manufacturing
- Machine Shop Inspection and Calibration
- Occupational Health & Safety Leadership
- Operations Management
- Manufacturing Productivity Improvement*
- PMP Examination Preparation
- Productivity Improvement Student Projects
- Productivity Studies
- Project Leadership
- Project Management
- Project Management Office (PMO) Services
- Quality Management (General, IT, Environmental)
- Six Sigma (Green & Black Belt*)

Manufacturing Solutions (MS)

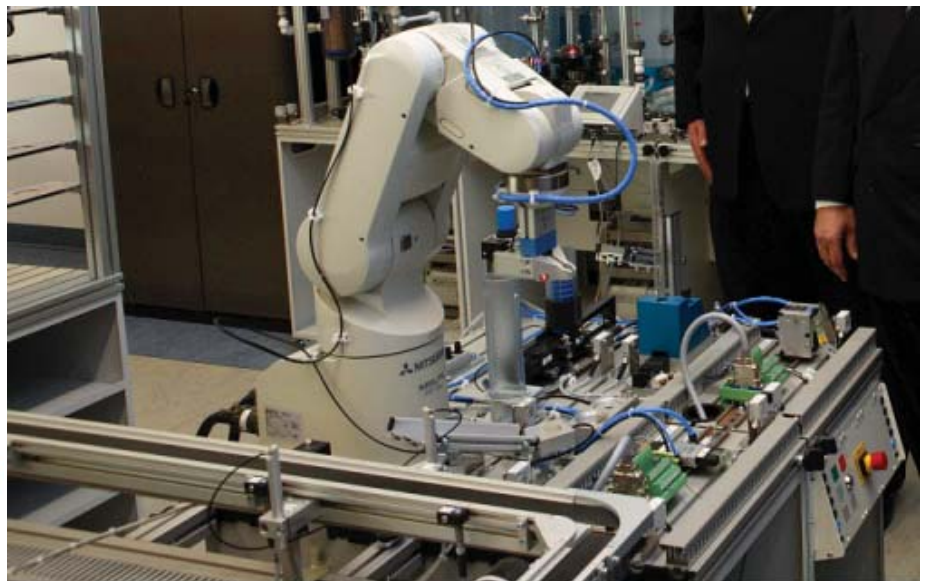
www.nait.ca/ms

- Active and Passive RFID
- Advanced Hydraulics & Pneumatics
- CNC Machining (Simulation and Fabrication)
- Computer Integrated Manufacturing Systems
- Computer-Aided Design and Modeling
- Control Systems (PLC, Process Control, and Monitoring)
- ERP Software Solutions (includes Demand Forecasting,
- Customer Relations Management, Supply Chain Management, Materials Management, Engineering, Planning & Scheduling, Operations, Inventory Control*
- Laser Cutting (3-D)
- Materials Testing
- Metrology/Inspection & Calibration
- Plastics Processing (Extrusion, Injection Molding, Blow Molding, and Composites)
- Rapid Prototyping
- Robotic Welding

Follow-up

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(*) Under development



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