Industrial Technology, B.S.

DEPARTMENT

Department of Industrial Technology
Dr. Athanasios Alexandrou, Chair
Industrial Technology Building, Room 212, M/S IT 9
Phone: 559.278.2145
FAX: 559.278.5081
www.fresnostate.edu/jcast/indtech

MS in Industrial Technology, M.S.
BS in Industrial Technology, B.S.
BS in Industrial Technology - Agricultural Systems Management Option, B.S.
MN in Industrial Technology, Minor
MN in Precision Agriculture Technology Minor

The Industrial Technology program at California State University, Fresno is geared towards preparing students for managerial and leadership roles in the industry. The program equips students with the necessary skills to use and manage state-of-the-art technologies in the fields of agricultural information systems, manufacturing, processing and packaging, quality systems and transportation. A blend of lectures, online instruction and hands-on lab activities together with engaged faculty and staff provides students with an environment that nurtures critical thinking and encourages innovation. The undergraduate curriculum includes technical concentrations in the areas of automotive technologies, food processing, and packaging, manufacturing quality and spatial technology which build on the strong foundations of our technology and management core courses.

The major focus of IT is to prepare individuals for technical and industrial management positions. Examples of positions held by IT graduates include plant engineer, fleet service representative, manufacturing engineer, operations supervisor, production planning analyst, production scheduling coordinator, and quality systems supervisor.

Average salaries for Fresno State IT graduates are commensurate with those offered to business managers and engineers in the Central Valley as well as in the greater Bay Area and Los Angeles areas. IT graduates typically enjoy career growth in both management and technological pathways.

The program also provides students the opportunity to interact with industry professionals and practitioners through activities organized by various professional societies such as the American Society of Automotive Engineers (SAE); American Society of Quality (ASQ); Association of Technology, Management, and Applied Engineering (ATMAE); American Society of Agricultural and Biological Engineers (ASABE); and Institute of Food Technologists (IFT). Major student clubs are Advanced Technology Enterprises (ATE); Epsilon Pi Tau (EPT); and American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE). Through participation in one or more of these groups, students learn more about their profession and interact with working professionals in their field. Internships are also available to provide on-the-job experience to interested students.

The Master of Science in Industrial Technology program offers an individually tailored program with a blend of theory and practice that provides an enriching learning experience and prepares tomorrow's professionals for exciting and rewarding careers. The graduate program includes a set of core courses and electives besides a culminating experience in the form of a project or thesis.

Mission Statement

The mission of the department is to prepare individuals for technical and management careers in business, industry, agriculture, and government for the improvement of regional and global economy.

Instructional Facilities

The Industrial Technology Department continues to receive equipment and financial support from a number of California-based industries. Facilities supported include the computer-aided design (CAD) lab, digital and analog electronics lab, hydraulics lab, process control/programmable logic controller lab, materials and fuels testing lab, robotics/computer numerical control (CNC)/computer integrated manufacturing (CIM) lab, motors and controls lab, and computer network lab.
REQUIREMENTS

Bachelor of Science Degree Requirement

Industrial Technology Major

Major requirements (68 units)

Technical Core (29 units)
IT 30, 52, 74, 104, 106, 114, 115, 133 or 156, DS 73 or MATH 11; CHEM 3A

Management Core (22 units)
IT 92, 117, 118, 137 or 184, 148, 196, 198W, 199

Electives (17 units)
Consult with a department advisor to develop 17 units of electives. Electives should be chosen from the following list with advisor's approval: IT 12, 41, 58, 63, 71, 80, 110, 112, 116, 120, 127, 129, 131, 133, 134, 146, 147, 156, 164, 165, 190, 191T, 194

General Education requirements (51 units)
(Includes 12 upper-division units, to be taken no sooner than the term in which 60 units of coursework are completed.)

Additional requirements (1 unit)
PHYS 2A, IT 20 either MATH 75 or DS 71 (Note: PHYS 2A and IT 20 satisfy two G.E. area requirements [B1 and D3]. MATH 75 or DS 71 satisfies G.E. area B4 requirements and meets the core course prerequisites. Consult the Class Schedule for a current list of approved G.E. courses).

Total units (120 units)*

*This total indicates that PHYS 2A and IT 20 also may be applied to G.E. area requirements, and it presumes that the student has fulfilled the Upper Division Writing Skills requirement by passing the Upper Division Writing Exam for zero units. Contact the department chair or faculty advisor for additional details.

Advising Notes

1. All courses (except IT 194) required for the major must receive a letter grade.
2. Students must pass the upper-division writing exam or complete IT 198W with a grade of C or higher (to be taken no sooner than the term in which 60 units are completed) to fulfill the upper-division writing skills graduation requirement.

FACULTY

The faculty are well qualified within their respective areas of instruction and each student is assigned an academic adviser within his or her field of study. The department is recognized for its diversification of faculty representing the makeup of professionals that must interact in the field. Several are recognized for outstanding contributions and leadership within their professions.

For faculty phone numbers and e-mail, see the campus directory.

For more on the faculty, see the faculty pages.
The faculty pages are updated by the department or program.

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexandrou, Athanasios</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:aalexandrou@csufresno.edu">aalexandrou@csufresno.edu</a></td>
<td>559.278.8824</td>
</tr>
<tr>
<td>Au, Tony M</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:tonya@csufresno.edu">tonya@csufresno.edu</a></td>
<td>559.278.4102</td>
</tr>
<tr>
<td>Austin, Darnell P</td>
<td>Master of Science</td>
<td><a href="mailto:daustin@csufresno.edu">daustin@csufresno.edu</a></td>
<td>559.278.6494</td>
</tr>
<tr>
<td>Leal-Quiros, Edbertho</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:equiros@csufresno.edu">equiros@csufresno.edu</a></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Degree</td>
<td>Email</td>
<td>Phone</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>----------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Machoian, Ken B</td>
<td>Doctorate of Education</td>
<td><a href="mailto:kmachoian@csufresno.edu">kmachoian@csufresno.edu</a></td>
<td>559.278.2920</td>
</tr>
<tr>
<td>Mahalik, Nitaigour</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:nmahalik@csufresno.edu">nmahalik@csufresno.edu</a></td>
<td>559.278.2995</td>
</tr>
<tr>
<td>Nambiar, Arun N</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:anambiar@csufresno.edu">anambiar@csufresno.edu</a></td>
<td>559.278.1443</td>
</tr>
<tr>
<td>Schaad, James</td>
<td>Master of Business Admin</td>
<td><a href="mailto:jschaad@csufresno.edu">jschaad@csufresno.edu</a></td>
<td></td>
</tr>
<tr>
<td>Sethuramasamyraja, Balaji</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:balajis@csufresno.edu">balajis@csufresno.edu</a></td>
<td>559.278.2333</td>
</tr>
<tr>
<td>Simonian, Nick J</td>
<td>Master of Science</td>
<td><a href="mailto:nsimonian@csufresno.edu">nsimonian@csufresno.edu</a></td>
<td></td>
</tr>
<tr>
<td>Walls, William A</td>
<td>Bachelor of Science</td>
<td><a href="mailto:wwalls@csufresno.edu">wwalls@csufresno.edu</a></td>
<td></td>
</tr>
<tr>
<td>Yen, Matthew M</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:matthewy@csufresno.edu">matthewy@csufresno.edu</a></td>
<td>559.278.4201</td>
</tr>
<tr>
<td>Zegarra, Jorge L</td>
<td>Master of Arts</td>
<td><a href="mailto:jozegarra@csufresno.edu">jozegarra@csufresno.edu</a></td>
<td></td>
</tr>
<tr>
<td>Zhang, Daming</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:dazhang@csufresno.edu">dazhang@csufresno.edu</a></td>
<td>559.278.1442</td>
</tr>
</tbody>
</table>