The Factory Science (Powered by Maxbyte) and PSG - Maxbyte CoE on IIoT Jointly Presents

POST GRADUATE CERTIFICATE IN INDUSTRIAL DIGITIZATION

A unique opportunity in experiential learning directly from thought leaders, industrial professionals & business leaders

220 Hours of Learning (Offline and Online)
Today, we are at the beginning of the Fourth Industrial Revolution. Developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing and biotechnology, to name a few, are all building on and intensifying one another. This will lay the foundation for a more comprehensive revolution than anything we have ever seen. Smart and digital systems—homes, factories, farms, grids or cities—will help solve the problems ranging from supply chain management to climate change.

Overall, there is a discreetly positive outlook for employment across most industries, with job growth expected in several sectors. However, it is also clear that this need for more talent in certain job categories is accompanied by high skill instability across all job classifications. Combined together, net job growth and skills instability result in most businesses currently facing major recruitment challenges and talent shortages, a pattern already manifested and set to get worse over the next five years.

“35% OF CORE SKILLS WILL CHANGE”

-World Economic Forum
The course is uniquely designed by experts in the field to cover different concepts in three categories:

**Programs Offered**

- **Management of Digitization** - Learners will know how to handle the digital initiatives and be capable of managing digitization.
- **Industrial Digital Application Development** - Learners will be able to implement digitization initiatives in the organization.
- **Advanced Digitization** - At the end of this program, learners will be able to perform advanced analysis.
- **Soft Skills** - This program will develop the interpersonal skills, domain and engineering process skills required.

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**Program Details**

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**Programs Offered**

- **IIOT Platform**
  - For Industry 4.0 Aspirants
  - For IIoT Developers and System Integrators
  - For Data and AR Engineers

**SOFT SKILLS & INTERNSHIP**
CURRICULUM

INDUSTRIAL DIGITAL FOUNDATION

1. An Introduction to Industrial IoT (IIoT)
2. IIoT Networks, Platforms, Softwares and Services
3. IIoT Protocol
4. IIoT Programming and Big Data
5. Visual Analytics and Predictive Analytics
6. Cyber security and Privacy in the IIoT
7. From Idea to Production
8. IIoT Capstone Project

IIOT OVERVIEW WITH EMBEDDED PACKAGE (30 HOURS)

1. Experience
2. Envision
3. Accelerate
4. Adapt

INDUSTRIAL DIGITIZATION MANAGEMENT (12 HOURS)

INDUSTRIAL DIGITAL APPLICATION DEVELOPMENT

1. Operations Technology (OT) Layer
2. OT-IT Integration
3. Information Technology (IT) Layer
4. OT-IT Data Security
5. Machine Assessment and Device Selection
6. OT-IT Integration Management System
7. Hands-on practical session

OT-IT INTEGRATION (30 HOURS)

1. Introduction to IoT, Industry 4.0 and Use Cases
2. Introduction to the IIoT Platform and Components
3. Learn about the IIoT Platform Mashup Builder
4. Learn about the IIoT Platform Services
5. IIoT Platform and Other Components
6. Hands-on Training

IIOT PLATFORM (30 HOURS)
CURRICULUM

DATA SCIENCE & AUGMENTED INTELLIGENCE

INDUSTRIAL DATA SCIENCE
(30 HOURS)

1. Manufacturing Applications
2. Data Science Basics
3. Modelling Techniques and Tools
4. Visualization and Communication of Analytics Results
5. Advanced Data Science
6. Industrial Case Studies
7. Hands-on Session

AUGMENTED REALITY DEVELOPMENT FOR SMART CONNECTED PRODUCT LIFECYCLE
(30 HOURS)

1. Overview and Use cases
2. Setup
3. Build
4. Publish
5. Manage

SOFTWARE SKILLS AND INTERNSHIP

SOFTWARE SKILLS AND INTERNSHIP
(48 HOURS)

1. Roles and Responsibilities in the Manufacturing Industry
2. Behavioral Skills
3. Internship

BUSINESS PROCESS
(10 HOURS)

1. An Overview of Manufacturing Engineering
2. Organizational Structure
3. Different Departments in the Manufacturing Industry

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FACULTY

Industry experts with industrial implementation experience, have kindly consented to deliver Master Classes exclusively for the benefit of the learners. Thought leaders possess a variety of functional and sectoral exposure in their careers. Their domain knowledge and implementation experience will bring in “experiential learning” benefits to the learners.
POST GRADUATE CERTIFICATE IN INDUSTRIAL DIGITIZATION

CERTIFICATION

The certificate will be granted to learners who successfully complete the programme, subject to passing the assessment test and submitting the capstone project.

PROCESS FOR PROFESSIONALS

Application Submission, Selection Process & Enrollment
Training and Capstone Project
Performance Review with Training Certification
Rewards, Recognition & Job Endorsement
Program Completion Certification, Access to I4.0 Community, Regular I4.0 Updates, Internship with Stipend

Note: Rewards, recognition and job endorsements are based on training and assessment performance

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LEARNING EXPERIENCE

The Industrial Digitization Transformation Learning programme consists of Video Lectures, Live Mentor Webinars, Assignments, Q&A Sessions, and Discussions.

Orientation
The First week is orientation week. During the first week, you will be introduced to the different courses and you will learn how to use the learning management system and other learning tools provided.

Goal Setting
In other weeks, you have learning goals set for the week, including watching the video lectures and completing the assignments. All assignments have weekly deadlines.

Video Lectures
The pre-recorded video lectures are done by the industry professionals and subject matter experts.

Live Mentor Webinars
During the programme, there will be live webinars conducted by industry experts. Live webinars are usually conducted on Thursdays or Fridays.

Q&A Sessions (Offline)
In addition to the live webinars, Course Mentors also conduct Q&A sessions every alternate week to help learners clarify any questions they may have regarding the programme content.

Follow-up
A Programme Support Team will follow-up through emails with learners who are unable to submit their assignments on time.

Continuous Programme Access
You will continue to have access to the programme videos and learning material for up to 12 months from the start date.
PROGRAM DETAILS

Are you ready to get upskilled and transform yourself for the future technological era?

100+ Hours of Learning

40+ Frameworks, Methods and Tools

20+ Case Studies

Practical Hands-on Assignments

One-on-One with Industry Mentors

Digitization SMEs as Instructors

CERTIFICATION

The certificate will be issued to the learners who complete the programme with subject to qualifying the assessment test conducted and capstone project submitted.
ABOUT PSG

PSG College of Technology is a Govt. Aided, Autonomous, Affiliated to Anna University and ISO 9001:2015 certified Institution. This is one of the foremost institutions founded by the PSG & Sons' Charities Trust (1926). The College was established in the year 1951 and the Founders wisely decided to locate it on the same campus as the PSG Industrial Institute for effective industry-institute interaction.

Department of Production Engineering
As manufacturing activities play a major role in the development of the country, PSG College of technology envisaged the need for trained manpower in manufacturing and thus the undergraduate programme in Production Engineering was started in the year 1975. The programme has been accredited for three years in the year 2018 and has been extended for one year in 2021, which is the best ranking offered for a BE programme by the National Board of Accreditation (NBA). The department offers two undergraduate programmes [B.E. Production Engineering and B.E. Production Engineering (Sandwich)] and two postgraduate programmes [M.E. Manufacturing Engineering and M.E. Virtual Prototyping and Digital Manufacturing]. The department also offers consultancy in manufacturing processes, design and testing a wide range of products, including product styling.

PSG – Maxbyte CoE on Industrial Internet of Things
Department of Production Engineering in collaboration with M/s. Maxbyte Technologies Private Limited has started the Centre of Excellence on Industrial Internet of Things at PSG College of Technology in 2018. The training centre includes the setup of machine analytics, energy analytics, remote monitoring & diagnostics and a vehicle tracking system. The major objective of the centre is to develop an interactive and hands-on IIoT learning & skill development facility for academic and research students and professionals to align with global industrial internet & digital manufacturing trends and career opportunities. The expected outcomes from this centre are the availability of a skilled workforce for industrial digitization, the development of methods, tools and technology for smart manufacturing and the digital transformation initiatives in industries and SMEs and academic institutions.

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ABOUT THE FACTORY SCIENCE

ARE YOU READY TO UPSKILL?

WE ARE YOUR INDUSTRY 4.0 LEARNING PARTNER

The Factory Science is an Industry 4.0 Learning Solutions for experiential and interactive learning for aspiring professionals. It includes unlimited use of our growing courses, tools, and playbooks. Community of The Factory Science is free for people to discuss, ask questions and share knowledge on Industry 4.0 / IIoT. The Factory Science is powered by Maxbyte Technologies a global leading Industry 4.0 solutions provider.

12 MASTER CLASS

1 HANDS-ON WORKSHOP

1 DIPLOMA PROGRAM

200+ EXPERTS IN COMMUNITY

PRICE
Your investment in this program is now INR 70,000 + GST

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FOR REGISTRATION CONTACT US

For more information and any details regarding the course, please email us at:

**PSG College of Technology**
N. Krishnakumar,
Assistant Professor,
Department of Production Engineering,
PSG College of Technology,
Peelamedu,
Coimbatore - 641 004.
Contact No: 09789000947
Mail Id: nkk.prod@psgtech.ac.in

**THE FACTORY SCIENCE**
info@maxbytetechn.com
revathy.j@maxbytetechn.com