M.Tech in Chemical Engineering

The program spans for a period of four semesters. The intake to this course is based on the score obtained in the GATE exam conducted jointly by the Indian Institute of science (IISc) and seven Indian Institutes of Technology (IIT) on behalf of the National Coordination Board – GATE, Ministry of Human Resource Development (MHRD). Foreign nationals are also admitted to this programme through schemes like ICCR. Education and research are closely integrated within this Master's program, which helps to stay aware of the latest developments in the field of chemical engineering.

The students are exposed to core and advanced areas of Chemical Engineering in the first two semesters consisting of a well structured palette of core subjects like Advanced Reaction Engineering, Steady State Process Simulation, Chemical Process Modeling and Chemical Process Synthesis . A wide range of electives like Process Intensification, Membrane Separation Processes, Multiphase Flow, etc., are also offered in this course, which provides an opportunity to explore the branch in a desired perspective. As part of the curriculum, students get hands on experience of software packages like Aspen Engineering Suite, Ansys Fluent & CFX, Matlab, Comsol and gProms. Students devote their entire second year for the Master's dissertation Project.

The program has an annual intake of 25 seats based on GATE score and additional 5 seats under self-sponsored categeory (without GATE qualification)

- Scheme of Instructions and Syllabus
  - https://www.nitw.ac.in/media/uploads/M.Tech._Chemical_Engg._Curriculum_2021.pdf

M.Tech in Systems and Control Engineering (upto 2020-2021, the specilization name is M.Tech in Process Control)

The program spans for a period of four semesters. The intake to this course is based on the score obtained in the GATE exam. This course is an interdisciplinary program admitting students with different backgrounds such as Instrumentation & Control Engineering, Electrical Engineering, Electronics and Instrumentation, Chemical Engineering, etc…Education and research are closely integrated within this Master's program, which helps to stay aware of the latest developments in the field of Control and Automation.

The students are exposed to core and advanced areas of Systems and Control in the first two semesters consisting of a well-structured palette of core subjects. A wide range of electives are

also offered in this course, which provides an opportunity to explore the branch in a desired perspective. As a part of the curriculum, students get hands on experience on software packages MATLAB/SIMULINK, Python. Students devote their entire second year for the Master's dissertation Project. The department is equipped with good Control Laboratory with different experimental set ups for understanding Systems Modeling, Control and Automation concepts.

The program has an annual intake of 25 seats based on GATE score and additional 5 seats under self-sponsored categeory (without GATE qualification)

- Scheme of Instructions and Syllabus - https://www.nitw.ac.in/media/uploads/MTech_Sys_Con_Engg_Curriculum_2021.pdf

PG. Diploma in Systems and Control Engineering

The program spans for a period of one year and is with effect from 2021-2022 academic year. The is a self sponsored program. This is an interdisciplinary program admitting students with different backgrounds such as Instrumentation & Control Engineering, Electrical Engineering, Electronics and Instrumentation, Chemical Engineering, etc…Education and research are closely integrated within this PG diploma program, which helps to stay aware of the latest developments in the field of Control and Automation. This course is also open to people working in industry.

The program is only offered under self-sponsored categeory with an annual intake of 10 seats.