



Knowledge Network of IIT Gandhinagar Under TEQIP-III Initiative

Short Course on Transport Processes for Chemical Engineers

Date: 16/12/2019 to 20/12/2019 (5-days)
Time: 10:30 am reporting time on 16th December 2019
Venue: IIT Gandhinagar, Palaj Campus
Target group: Faculty members, PG & Senior UG Students
Register At: www.iitgn.ac.in/kn
Dead line: 5th December 2019

Transport processes occur everywhere in nature and are key to develop fundamental understanding of fluid mechanics, heat and mass transfer. Transport Phenomena course draws parallels between these transport processes and uses the concepts to solve real life engineering problems. This course is multi-disciplinary and is relevant for mechanical, chemical, aerospace engineers. A set of important topics will be covered in the summer school with the focus on developing better understanding by examples of problems from various streams of engineering.

Topics for discussion

Overview of vectors and tensors; transport by molecular motion (mechanisms of momentum, heat and mass transfer); Transport in one dimension (shell balances and velocity, temperature and concentration distribution); Transport in arbitrary continua (equation of change for isothermal, non-isothermal and multicomponent systems); Transport with two independent variables (velocity, temperature and concentration distribution); Miscellaneous topics.

Tentative schedule for this summer school

- (a) Morning session: Lectures for 2-3 hours
 - (b) Afternoon session: Tutorial session for 2-3 hours
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Course Coordinator - Prof. Pratyush Dayal (IIT Gandhinagar)

Course Co-Coordinator - _____