

Online Short Term Course on "Linear and Network Optimisation"



22 August to 13 September (on every weekends for four weeks), 2020
Centre for Continuing Education (CCE)
Indian Institute of Science, Bangalore, India - 560012

Course Content:

See attached sheet

Minimum Qualification Required:

Pursuing or completed
B.Tec /M.Tech/B.sc/M.sc

Prerequisites:

Elementary linear algebra, some basic knowledge of Python would help

Participants:

The Course is targeted for individuals interested in optimization

Course Coordinators:

- Dr. Tarun Rambha, Assistant Professor, Civil Engineering / CiSTUP Dept., Indian Institute of Science, Bangalore - 560012

Registration: This course can be attended only by registration. The registration will be accepted on a first-come first-served basis.

Apply online at: <http://cce.iisc.ac.in/ssp-stc.html>

Duration: August 22 – September 13 (24 class hours, every weekend for four weeks)

The registration fee is INR 1000 +18% GST

Last Date to Apply: 31 July 2020

Note: Course will be conducted through Microsoft Teams/Google Meet

Course Content:

1. Formulating linear optimization problems – Part I
2. Formulating linear optimization problems – Part II
3. Computer programming lab
4. Geometric methods and convexity
5. Linear algebra review
6. Simplex method – Part I
7. Simplex method – Part II
8. Sensitivity analysis
9. Duality
10. Dual Simplex
11. Computer programming lab
12. Network flows
13. Introduction to integer programming
14. Branch and Bound method
15. Traveling salesman and vehicle routing
16. Large scale linear programming