

National Institute of Technology Meghalaya

STTP (Online)

Numerical Linear Algebra & Optimization Techniques in Engineering

March 15-19, 2022

PROGRAM SCHEDULE

Dates	9:00 AM to 11 AM	11 AM to 11.30 AM	11.30 AM to 1.30 PM	1.30 PM to 2:30 PM	2:30 PM to 4.30 PM	4:30 PM to 4:45 PM
15.03.2022 (Tuesday)	Registration and Inauguration <i>Session 1</i> Topic: Basics of matrix theory and computation (Dr. M. Saha, NIT Meghalaya)	Break	<i>Session 2</i> Topic: System of linear equations- Direct methods (Prof. R. Alam, IIT Guwahati)	Lunch break	<i>Session 3</i> Topic: Linear system using MATLAB (Dr. S. Mukherjee, NIT Meghalaya)	Q&A
16.03.2022 (Wednesday)	<i>Session 4</i> Topic: Conditioning of problems and stability of numerical algorithms (Prof. R. Alam, IIT Guwahati)	Break	<i>Session 5</i> Topic: System of linear equations- Iterative methods (Dr. S. Mukherjee, NIT Meghalaya)	Lunch break	<i>Session 6</i> Topic: Linear least square problems and its solution (Prof. S. Bora, IIT Guwahati)	Q&A
17.03.2022 (Thursday)	<i>Session 7</i> Topic: Methods of calculating eigenvalues and eigenvectors (Prof. S. Bora, IIT Guwahati)	Break	<i>Session 8</i> Topic: Linear programming: Simplex method & Duality-I (Dr. S. Bandopadhyay, IIT Guwahati)	Lunch break	<i>Session 9</i> Topic: Nonlinear programming-I (Dr. B. Deb, SMIT)	Q&A
18.03.2022 (Friday)	<i>Session 10</i> Topic: Linear programming: Simplex method & Duality-II (Dr. S. Bandopadhyay, IIT Guwahati)	Break	<i>Session 11</i> Topic: Nonlinear programming-II (Dr. B. Deb, SMIT)	Lunch break	<i>Session 12</i> Topic: LLSP and eigenvalues using MATLAB (Dr. M. Saha, NIT Meghalaya)	Q&A
19.03.2022 (Saturday)	<i>Session 13</i> Topic: Convex optimization and its applications (Prof. C. S. Lalitha, Delhi University)	Break	<i>Session 14</i> Topic: Trust region method for optimization problems (Prof. G. Panda, IIT KGP)	Lunch break	<i>Session 15</i> Topic: Optimization techniques in engineering (Dr. D. S. Roy, NIT Meghalaya)	Q&A; Test; Valediction