



**B.M.S. COLLEGE OF ENGINEERING, BENGALURU-19**  
**Autonomous Institute, Affiliated to VTU**  
**Department of Chemical Engineering**

Sl. No	Module Description	Any other Contributory Inst/ Industry	Developed / Organized by	Duration	Resource Persons	Target Audience
1.	Introduction to MATLAB and Chemical Engineering Applications	IICHE, Bengaluru Chapter	Department of Chemical Engineering	17 <sup>th</sup> to 21 <sup>st</sup> November 2020	Mr. Soumen Panda Dr. Sreelakshmi Diddi Mr. Shivakumar Dr. Chetan A Nayak	UG Students all over India
2.	Applications of M S Excel Spreadsheets in Chemical Engineering Research	Dr. D. Y. Patil Institute of Engineering, Management and Research, Pune	Department of Chemical Engineering	14 <sup>th</sup> to 18 <sup>th</sup> December 2020	Mr. Raman Singh V Thakur	UG Students
3.	Waste Technology: Wealth from Waste	ATAL Faculty Development Program  Technology Innovation: Wealth from Waste-	Department of Chemical Engineering	23 <sup>rd</sup> to 27 <sup>th</sup> November 2020	Dr. Hoysala N Chanakya Dr. Uttam Ravishankar Dr. Ravishankar, Former Dr. Manjappa Er. M. N. Thippeswamy Mr. Anant Vithal Mr. Basavaiah Dr. C T Puttaswamy Dr. P Parthasarthy Mr. Chytheyen N K Dr. Shashi Shankar A Dr. Sourabh Kumar Yadav Dr. G Sekaran	Faculty from All over India



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## **Report**

### **National Level Hands - on Training Program (Online) on MATLAB & Chemical Engineering Applications**

A National Level Hands - on Training Program (Online) on MATLAB & Chemical Engineering Applications was Organized by the Department of Chemical Engineering & IChE BMSCE Student Chapter in Association with B. S. Narayan Center for Advanced Learning and Software Development from 17<sup>th</sup> to 21<sup>st</sup> November 2020. The inaugural was graced by Dr. S. Muralidhara, Vice Principal, BMSCE and Dr. C. T. Puttaswamy, Head of the Dept., Chemical Engg., BMSCE. The training was conducted by the faculty team comprising of Mr. Soumen P, Mr. Shivakumar R, Dr. Chetan A Nayak and Dr. Sreelakshmi D. A total of 64 participants from all over India took part in the training. The objective of the training was to initiate the participants to use MATLAB effectively to solve Chemical Engineering problems. The topics covered were:

Day 1: Introduction to MATLAB

Day 2: Functions, Loops and Plotting Graphs,

Day 3: Differentiation and Integration – Chemical Engg. Applications

Day 4: Linear and Non-Linear algebraic equations - Chemical Engg. Applications

Day 5: ODE - Chemical Engg. Applications.



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**Report on  
One Week Value Added Course  
on  
Applications of MS Excel spreadsheet in Chemical  
Engineering research**

**14<sup>th</sup> to 18<sup>th</sup> December 2020**

**Organizing Chair**

Dr. C. T Puttaswamy, Professor & Head  
Department of Chemical. Engineering

**Coordinators**

Mr. Shivakumar. R  
Assistant Professor, Department of Chemical  
Engineering

Dr. Chetan A Nayak.,  
Assistant Professor, Department of Chemical  
Engineering



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Microsoft Excel is widely used tool in various chemical and petrochemical industries for energy and material balance calculation, project management, etc. Being a powerful tool for calculations, yet it is very simple, easily available and user friendly. All of us might have used this tool for different purposes. This course particularly focuses on its application to solve different chemical engineering problems from different subjects to save our time and to reduce efforts.

**Objectives and Outcomes of the Value Added Course**

- Excel basic skills
- Detailed discussion about problems and concepts
- Solving different problems of chemical engineering
- Analyzing prepared sheets and guidance for projects

• **COURSE CONTENT**

1. Module One: Excel Setup and Basic Skills (2 hours)
2. Module Two: Heat Transfer
3. Module Three: Process Calculation
4. Module Four: Fluid Flow
5. Module Five: Thermodynamics
6. Module Six: Mass Transfer
7. Module Seven: Chemical Reaction Engineering

The inaugural was graced by Dr. Samita Maitra, Dean Academics, BMSCE and Dr. C. T. Puttaswamy, Head of the Dept., Chemical Engg., BMSCE. The training was conducted by the Mr. Ramansingh V. Thakur, Assistant Professor, Department of Chemical Engineering, DR. D. Y. PATIL INSTITUTE OF ENGINEERING, MANAGEMENT & RESEARCH, Pune from 14<sup>th</sup> to 18<sup>th</sup> December 2020.