



EDUCATION

Program	Institution	Percentage/CGPA	Completion
B. Tech in Chemical Engineering	Indian Institute of Technology Madras, Chennai	9.21/10 (up to 5 th semester)	2019
12 th Grade (CBSE)	AECS Magnolia Maaruti Public School, Bangalore	97.2%	2015
10 th Grade (ICSE)	Cambridge Public School, Bangalore	95.6%	2013

SCHOLASTIC ACHIEVEMENTS

• Stood 2nd in CBSE 12th grade in Bangalore and received letter of appreciation from HRD Union Minister	2015
• Top 1% (amongst 2 hundred thousand students) to have cleared the KVPY Fellowship Exam	2014
• Ranked 1st in All Karnataka Science Aptitude Test conducted by Edurite (amongst 1 hundred thousand participants)	2012
• Placed in the top 10 internationally (amongst 3.5 hundred thousand students) in ASSET conducted by EI	2012
• Awarded NTSE scholarship for being in the top 2% amongst 5 hundred thousand students (State Rank- 14)	2011

PROJECTS

Automation of Precipitation Reactor-Titan Company Limited, Hosur

- Conceptualised the automation of the gold refining process
- Formulated plan through experimentation, data analytics and thorough theoretical studies
- Implemented technology to reduce the safety hazards and improve the efficiency of the process

Computational Framework for Solving Homogeneous Reactors- Indian Institute of Science, Bangalore:

May - July 2017

Guided by Dr. Sivaram Ambikasaran and Dr. Krithika Narayanaswamy

- Developed a computational framework in **C++** for **simulations** of homogenous reactors under isochoric and isobaric conditions
- Used *Eigen*, *CVODE*, *ODEINT* packages to implement and solve system of **coupled non-linear ordinary differential equations**
- Implemented in-house applications- **Runge-Kutta** methods (Orders 1-5), **Adam Bash Forth** method and **Implicit Euler** method
- Designed a fast and stable algorithm by **linear stability analysis** for chemical **kinetic mechanism validation** of fuel combustion
- Systematized the framework to simulate kinetic mechanisms involving **several hundreds** of species and reactions

Course Project- MATLAB

July - Nov 2016

- **MATLAB**: Programmed multiple **process simulations** for computing the bubble point of a multi-component liquid mixture, the vapour and liquid fractions in an isothermal flash, enthalpy and entropy of saturated isobutane vapour amongst others

COURSE WORK AND TECHNICAL PROFICIENCY

Programming Skills	C++ , C , Python , MATLAB , ASPEN	
Mathematics/Programming	• Computer Programming in C	• Data Structures and Algorithms
	• Basic Graph Theory	• Computational Techniques and Numerical Methods
Chemical Engineering Theory	• Series and Matrices	• Computational Programming and Process Simulation
	• Multivariate Data Analysis	• Calculus in Several Variables
Chemical Engineering Theory	• Fluid and Particle Mechanics	• Process Dynamics and Control
	• Process Optimization	• Continuum Mechanics and Transport Phenomena
	• Heat and Mass Transfer	• Chemical Engineering Thermodynamics
	• Material Science and Engineering	• Chemical Reaction Engineering

CO-CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES

Positions of Responsibility	• <u>Coordinator, Music Club and Events:</u> ▪ Coordinated and organized 12 music events at IITM's cultural fest, Saarang (Team size- 16) ▪ Led a team of 30 volunteers ▪ Initiated new events- Beat-boxing workshop & Karaoke Night
	• <u>Coordinator, IITM Placement Cell:</u> ▪ Increased the number of recruiters by 30% (highest in 3 years) through strategic calls & approach through LinkedIn to reach out to HRs ▪ Oversaw smooth conduct of interviews during placement season which saw the participation of 250+ companies and 1000+ students .
Social Service	• Volunteer - Camp Diaries, a Teach for India initiative, reached out to 800 children
Music	• Won 6 events at intra and inter collegiate level on being of part of institute a capella team
	• Active participant in music events at intra-college level (1st :WM group '16, 1st :Solo singing '16)
Swimming	• Training as a part of the Institute's Inter-IIT swimming team
	• Won 37 medals at the inter-school level from 7 th to 10 th grade (8 gold, 18 silver, 9 bronze)