

Mr. Rajesh C. Sanghvi

Designation : Lecturer of Mathematics
Date of Birth : 17.06.1970
Date of joining the college : 10.08.1998
Address : 15, Shri Hari Nagar Society,
Behind G H Patel Computer
Center, Vallabh vidyanagar.
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Academic Qualifications :

B.Sc. (Computer Science), SPU, Vallabh Vidyanagar
B.Sc. (Mathematics), SPU, Vallabh Vidyanagar
M.Sc. (Mathematics), SPU, Vallabh Vidyanagar

Teaching experience (Starting from present position):

University/ college	Designation	Period
GCET, Vallabh Vidyanagar	Lecturer	11 yrs
M.B.Patel Science College	Adhoc Lecturer	2 yrs

Theory courses Taught to date (Undergraduates):

1. Mathematics- I, II, III
2. Probability and Statistics
3. Numerical methods in engineering
4. Fuzzy sets and fuzzy logic

Theory Courses Taught to date (Postgraduate):

1. Optimization Techniques
2. Morphological Transformations

Areas of interest :

MATLAB
Image Processing
Wavelet Theory
Optimization
Artificial Intelligence
Cryptography
Signal Processing

Lectures Delivered:

1. Delivered a lecture in the Lecturer series on "Digital Image Processing Recent Trends" organized by EC Department, GCET
2. Delivered two lectures on "Symbolic mathematics & Numerical Methods Using Matlab" in a workshop organized by ME Department, GCET
3. Delivered lectures on "Symbolic mathematics & Numerical Methods using Matlab" in a technical forum of students namely "Varchasva" at BVM
4. Delivered lectures on "Symbolic mathematics using Matlab" in a workshop organized by EC Department, GCET
5. Delivered lectures on "Symbolic mathematics using Matlab" in a workshop at ADIT, organized by Mathematics Department, ADIT
6. Delivered lectures on "2D and 3D plots and symbolic mathematics using MATLAB" at GCET, jointly organized by EC and MC Departments
7. Conducted a lab session on "partial differential equation" at "Two days crash course on soft computing organized by CH Department

8. Delivered two lectures on "Color Image Processing and its Applications " at GCET for the final year Mechatronics students
9. Delivered a lecture on "Color Image Processing" at GCET for first year ME Electronics students
10. Delivered a lecture on "Optimization with GA and SA with case studies" at one day seminar organized by Mechatronics Department, GCET
11. Delivered a lecture on "Symbolic Mathematics" at a workshop on "Magic of MATLAB" organized by EC Department, GCET

As a Judge:

1. Was a Judge for the "MATLAB Guru Competition under SCINTILLATIONS" organized by IEEE student chapter

Guidance to Students for the projects:

1. Co-Guide for a project on "Digital Signature Using Biometrics", done by final year EC students
2. Helped two M.Sc. Biometric Students from G H Patel Computer Center in Matlab Programming for their project on "Automatic Karyotyping System"
3. Co-Guide for a project on "Finger Print Based Authentication with ECC done a by final year IT student
4. Co-guide for a project on "Steganography along with Cryptography" done by two final year CP students
5. Co-guide for a project on "Image Compression" done by two final year IT students
6. Co-guide for a project on "Digital Water Marking using MATLAB" done by two final year IT students
7. Co-guide for a project on "PDA File Encryptor" done by two final year IT students

8. Co-guide for a project on "Determination of Optimum machining parameters in conversion of cylindrical bar stock into a finished profile" done by two final year MC students

List of papers published/presented (International Conference):

1. Published and presented a paper on "Maximum Response to Basic Delayed Pulses for a Damped Spring Mass System" at a conference on Advances in Mechanical Engineering (ICAME-2008) held by Department of Mechanical Engineering of SVNIT, Surat during 15th to 17th December 2008.
2. Published and presented a paper on "Genetic Algorithms- A Robust Method for Optimum Design of Machine Elements" at a conference on Advances in Mechanical Engineering (ICAME-2009) held by Department of Mechanical Engineering of SVNIT, Surat during 3rd to 5th August 2009.

List of papers published/presented (National Conference):

1. Published and presented a paper on "Cost optimization for a slab-milling operation using genetic algorithms" with Sanket Bhavsar from Mechatronics Engineering Department in a National Conference at SVNIT, Surat
2. Published and Presented a paper on "Maximum Value of the Steady State Response for a Spring Mass System Under Multi-Frequency Excitation" with Mr Vinod N Patel from MC department, GCET at a National Conference organized by ME department, GCET.
3. Published and Presented a paper on "Some Experiments with zero/one Multiple Knapsack Problem" at a National Conference organized by IT/CP department at SCET, Surat.

4. Published and presented a paper on "Study of Transient Vibrations Using Simpson's three-eighth rule" at a national conference on "Innovations and Applications of Mathematical modeling techniques in Engineering Systems" held by Department of Civil Engineering and Mathematics of ADIT, New Vallabh Vidyanagar on 10th December 2008.
5. Published and presented a paper on "Joint trajectories using MATLAB" at a conference on "Innovations in Mechatronics Engineering" organized by MC department, GCET
6. Published and presented a paper with Prof. Vipul R Shah on "Free response of a Multi-Degree of-Freedom Undamped system using Matrix Iteration Method" at a conference on "Engineering trends in Mechanical Engineering" organized by ME department, GCET

No. of STTPs/ Workshops/ QIP programs attended :

1. Research Methodology in Engineering Education
2. Workshop on Vedic Mathematics
3. Indo-UK study group meeting on Industrial Problems
4. Introductory seminar on Astronomy, Astrophysics and Space sciences
5. WTO- Opportunity or threat to Technical Education in the context of Excellence and Quality Assurance
6. AI and Soft Computing
7. Cryptography and Network Security
8. Workshop on "Ant Colony Optimization" organized by IT-CP Department,GCET on 13th September 2007.
9. Symposium on "Convergence of Technologies" on 16th September 2007 organized by Institute of Engineers,

Students chapter 07 BVM.

10. Workshop on "Introduction to Matlab for Engineers" at GCET, organized by MC and EC Departments, GCET.
11. Attended "2nd National Symposium on Data & Knowledge Engineering" at ADIT, New Vallabh Vidyanagar on 25th September 2005.
12. One day symposium on "Adaptive Signal Processing" at GCET, 1ST Feb 2008.
13. Attended an STTP on "Real time Application Development using Digital Signal Processors and FPGAs" organized by EC department, GCET.
14. Attended a three days workshop on "Advanced Network Technology with Linux, Windows and Mikrotik" during 12th June to 14th June 2008 organized by IT Department, GCET.
15. Attended a one-week STTP on "Advanced Engineering Optimization through Intelligent Techniques" organized by ME Department at SVNIT, Surat.