



# Vijay Visavaliya

Assistant Professor

- +91 94281 90472
- visavaliavijay@gmail.com
- vrvisavaliya@gecv.ac.in
- 201921014@daiict.ac.in

## Online Platforms –

- Google Scholar
- ORCID
- ResearchGate
- Linkedin Page
- MathPuter

## Languages

- ▶ **Gujarati:** Mother tongue
- ▶ **Hindi:** Conversationally fluent
- ▶ **English:** Communicate

## Education

### Study

**Doctor of Philosophy** DAIICT-Gandhinagar

*Pursuing*

**Thesis Title:** *Pebbling Number on the Framework of Graph Products*

**Supervisor:** *Prof. R. Muthu, DAIICT-Gandhinagar*

**Description:** *The graph pebbling problem borns from the study in finite group and number theory. The game of pebbling moves was first proposed by Lagarias and Saks in 1987 with the question, Is the pebbling number of the  $n$ -dimensional hypercube equal to  $2^n$ ? And Chung answered this question in the paper which is the first paper on the pebbling number. Variations on the pebbling number have been published and studied on the different class of graphs. The pebbling number of Sierpinski gasket graph is unknown for last twenty years and we found  $\pi(S_n)$  and highlighted some flavors on famous Graham's conjecture for Sierpinski graph  $S_n$ .*

**Master of Philosophy** Sardar Patel University, Vallabh Vidyanagar

2008 76.00 % *First Class with Distinction*

**Main Subject** *Functional Analysis*

**Thesis Title:** *Real Function Algebras*

**Supervisor:** *Prof. R.D. Mehta, Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar*

**Description:** *The theory of Banach algebras plays an important role in Functional analysis as most of the classical Banach spaces such as  $\mathbb{C}[a, b]$ ,  $l^1$ ,  $l^\infty$  etc. are Banach algebras. However, in the theory of Banach spaces the scalar field does not matter much, while in Banach algebras it does. Here we mainly study the elementary theory of real Banach algebras, the Gelfand theory of real commutative Banach algebras, a complexification of a real function algebras.*

**Master of Science** Sardar Patel University, Vallabh Vidyanagar

2007 72.63 % *First Class with Distinction*

**Main Subject** *Pure Mathematics*

**Bachelor of Science** Saurashtra University, Rajkot

2005 74.85 % *First Class with Distinction*

**Main Subject** *Mathematics*

**HSC** Kamani Forward Higher Secondary School, Amreli

2002 50.92 % *Second Class*

**Subjects** *Mathematics, Physics, Chemistry and Biology*

**SSC** G.P.Madhyamik School, Juni Haliyad

2000 84.29 % *First Class with Distinction*

### Short Term Courses

- MATLAB based Teaching-Learning in Mathematics, Science & Engineering
- Python Basics for Data Science
- GeoGebra

# Vijay Visavaliya

Assistant Professor

## Technical Skills

### > Programming

- ▶ Languages **C**
- ▶ Script **Python**
- ▶ Tools **LaTeX**
- ▶ Software **Scilab**  
**MATLAB**  
**GeoGebra**

## Research Interest

### > Analysis

- ▶ Functional Analysis
- ▶ Boolean Analysis

### > Computation

- ▶ Algorithm
- ▶ Graph Theory

## Coursework

### > Calculus

### > Vector Space

### > Linear Transformation

### > Matrix Theory

### > ODE & PDE

### > Laplace Transformation

### > Fourier Integral

### > Probability & Statistics

### > Numerical Methods

### > Complex Analysis

### > Python Programming

## Experience

### Academic Experience

#### Assistant Professor

**Jan '19–Present** *Government Engineering College, Valsad*

#### Assistant Professor

**May '11–Dec '18** *Vishwakarma Government Engineering College, Chandkheda*

#### Assistant Professor

**Aug '08–Apr '11** *Charotar University of Science and Technology, Changa*

### Research Experience

- 1 year and 8 months research experience with Dr. Bireswar Das, Assistant Professor, Department of Computer Science, Indian Institute of Technology, Gandhinagar (**IIT-Gn**) during 2011-2013.
- 9 months research experience with Dr. Rahul Mutthu, Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar (**DAIICT- Gandhinagar**) during 2014-15.

## Achievement

### Academic Achievement

#### **NET** *National Eligibility Test*

**Jun '12** *All India Rank 111, Junior Research Fellowship by CSIR-UGC*

#### **GPSC** *Gujarat Public Service Commission*

**Apr '11** *State Rank 5, by Government of Gujarat*

#### **NET** *National Eligibility Test*

**Dec '08** *Lectureship by CSIR-UGC*

#### **GATE** *Graduate Aptitude Test in Engineering*

**Mar '08** *All India Rank 239 by Indian Institute of Technology, Bangalore*

#### **GATE** *Graduate Aptitude Test in Engineering*

**Mar '07** *All India Rank 266 by Indian Institute of Technology, Kanpur*

#### **JAM** *Joint Admission Test in Mathematics*

**May '05** *All India Rank 406 by Indian Institute of Technology, Bombay*

#### **ARRao** *Prof A R Rao Mathematics Competition*

**Sept '04** *State Rank 3 by Gujarat Ganit Mandal*

### Research Achievement

#### **Review** *Certificate of Reviewing*

**Feb '24** *Journal Discrete Applied Mathematics by ELSEVIER*

# Vijay Visavaliya

Assistant Professor

## Interest

### > Photography

- ▶ Street Photography
- ▶ Abstract Photography

### > Reading

- ▶ Spiritual
- ▶ Technical

### > Dream Analysis

## References

[1] **Prof. Rahul Muthu**  
*DAIICT, Gandhinagar*

rahul\_muthu@daiict.ac.in

## Publications

- 2015 *Further Results on Sum Cordial Graphs*, Malaya J. Mat. 3(2)(2015), 175-181 [ISSN: 2319-3788].
- 2014 *Sum Cordial Labeling of Graphs*, J. Math. Comput. Sci. 4(5) (2014), 879-891 [ISSN: 1927-5307].
- 2014 *Some Results on Sum Cordial Graphs*, Communications in Optimization Theory, 6(2014) [ISSN 2051-2953].
- 2011 *The Entropy Influence Conjecture Revisited*, Electronic Colloquium on Computational Complexity, Report No. 146(2011) [ISSN 1433-8092].

## Talks Delivered

- Strategic Mastery: Elevating Your Aptitude for GATE and Beyond in Placement Activities organized by Gujarat Technological University, Ahmedabad during February 08, 2024.
- Problem solving in Mathematics for JAM, GATE and NET organized by Department of Mathematics, St. Xavier's College, Ahmedabad during January 4-8, 2018.
- Problem Solving in Mathematics organized by Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar during December 20-26, 2011.
- Problem Solving in Mathematics organized by Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar during January 28, 2010.
- Problem Solving in Mathematics organized by Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar during February 03, 2010.

## Training Taken

- Online UDAYAM (Unlimited Digital Advanced Yearlong Academic Method of Learning) E-Content Development Course organized by Knowledge Consortium of Gujarat, Ahmedabad and HRDC, Gujarat University during June 28 - August 18, 2020.
- Short Term Training Programme on NBA Accreditation organized by National Institute of Technical Teachers' Training and Research, Bhopal during 26 August-30 August, 2019.
- Short Term Training Programme Induction Training Phase-II organized by National Institute of Technical Teachers' Training and Research, Bhopal during 27 August-8 November, 2018.
- Short Term Training Programme on Thinking about Thinking organized by Nirma University, Ahmedabad during 30 June-11 July, 2014.
- Short Term Course on Induction Training Programme Phase-I organized by National Institute of Technical Teachers' Training and Research, Bhopal during 26 May-6 June, 2014.
- Karmayogi Residential Training for Quality Improvement Program in Technical Education organized by Commissionerate of Technical Education, Gandhinagar during 21-23 November, 2013.
- Short Term Training Program on MATLAB organized by Dharamsinh Desai University, Nadiad during 29 June-4 July, 2009.
- Staff Development Programme on Applications of Mathematical Sciences and Soft Computing organized by Sardar Vallabhbhai National Institute of Technology, Surat during 8-12 December, 2008.

## Seminars/Workshops/Conferences Attended

- AICTE Training And Learning(ATAL) Academy Faculty Development Program on Artificial Intelligence: Applications in Modelling, Process Control and Optimization at Government Engineering College, Valsad during January 01-06, 2024.
- International Conference on Discrete Mathematics (ICDM2021) organized by Department of Mathematics, Mononmaniam Sundaram University, Tamil Nadu during October 11-13, 2021.

- International Workshop on Graphs from Algebraic Structures (IWGA2021) organized by Department of Mathematics, Mononmaniam Sundaram University, Tamil Nadu during October 07-09, 2021.
- An introductory workshop on GeoGebra organized by International GeoGebra Conference, India during March 01-07, 2021.
- Short Term Training Program on “MATLAB based Teaching-Learning in Mathematics, Science & Engineering” organized by the Department of Electronics Engineering, Ramrao Adik Institute of Technology, Nerul, Navi Mumbai in collaboration with DesignTech Systems Pvt. Ltd., Mumbai during May 18-22, 2020.
- 13<sup>th</sup> Annual ADMA Conference & Graph Theory Day-*XIII* sponsored by Department of Science & Technology (DST) and organized by Academy of Discrete Mathematics and Applications (ADMA) & SSN College of Engineering, Chennai from 08-10 June, 2017.
- 13<sup>th</sup> ADMA Pre-conference School on Graph Algorithms organized by Academy of Discrete Mathematics and Applications (ADMA) & SSN College of Engineering, Chennai from 5-7 June, 2017.
- ISTE workshop on Pedagogy for Effective use of ICT in Engineering Education conducted by Indian Institute of Technology-Bombay from 12 June-2 August, 2014.
- Faculty Development Programme at OAKBROOK Business School, Ahmedabad on 1 February, 2014.
- Project Demonstration on Differential Equations organized by L.D. College of Engineering, Ahmedabad on 16th July, 2011.
- Scope of Research in Applied Mathematics organized by Institute of Technology, Nirma University, Ahmedabad on April 17, 2010.
- 3rd GSA-VVN CSC ANNUAL SCIENCE MEET at Department of Physics, Sardar Patel University on 17 February, 2008.
- The Workshop on Problem Solving in Mathematical Analysis and Related Areas' organized at the Department of Mathematics, Sardar Patel University during 21-26 February 26, 2008.
- 'Problems and Prospects of the Present Examination System' organized by the Examination Reforms Unit of the Sardar Patel University on 08 February, 2007.
- 44th meet of Gujarat Ganit Mandal organized by Ganit Parivar, Vadodara during 04-06 November, 2007.
- The Workshop on Problem Solving in Mathematics' organized at the Department of Mathematics, Sardar Patel University during December 27, to January 1, 2007.
- Visiting Student Study Programme 2006 held at Harish-Chandra Research Institute, Allahabad from 5-23 June, 2006.
- 41th meet of Gujarat Ganit Mandal organized by Lok Vigyan Kendra, Junagadh during 18-20 November, 2004.

### Extra-Curricular Activities

- Organized Fifth State Level Photography Workshop and Exhibition at Government Engineering College, Valsad during March 2024.
- Organized Fourth State Level Photography Workshop and Exhibition at Government Engineering College, Valsad during March 2023.
- Served as a judge in the SVS level Bal Vaigyanik Pradarshan 2023-24 organized by GCERT and National Innovation Foundation, Gandhinagar during September 22, 2023.
- Served as a judge in the Zone level Inspire Award Science Exhibition and Competitions 2019-20 organized by GCERT and National Innovation Foundation, Gandhinagar during December 27, 2019.
- Served as a judge in the District level Science Fair 2019-20 organized by District Institute of Education and Training, Valsad during September 26, 2019.