

Name:	Dr. (Mrs.) Gayatri Brijesh Pandya Ph.D. (Kalinga University, Naya Raipur, Chhattisgarh, India) M.Sc. Mathematics (Mumbai University, Kalina) B.Sc. Mathematics (Patkar College, Goregaon (West), Mumbai University, Kalina)	
Designation:	Assistant Professor, DJSCE	
Department:	Science and Humanities (Mathematics Section)	
Date of Joining the Institute	01-08-2003	
Date of Birth:	22-04-1978	
Email ID:	profgayatripandya@gmail.com gayatri.pandya@djsce.ac.in	
Qualifications:	<ul style="list-style-type: none"> Ph.D. (Mathematics), Kalinga University, Naya Raipur, Chhattisgarh, India M.Sc. (Mathematics), 1st class, Mumbai University, Kalina. B.Sc. (Mathematics), 1st class with distinction, Patkar College, Goregaon (West), Mumbai University, Kalina. 	
Total Teaching Experience in Years:	23 years	
Work Experience Teaching:	<ul style="list-style-type: none"> Assistant Professor, D. J. Sanghvi College of Engineering from 1.1.2006 till date. Lecturer, D. J. Sanghvi College of Engineering from 1.8.2003 to 31.12.2005 Lecturer, Watumull College of Engineering from 3.2.2003 to 31.5.2003 Lecturer, Thadomal Shahani Engineering College from 3.2.2003 to 31.5.2003 Lecturer, VCET from 01.8.2002 to 30.11.2002 Lecturer, VCET from 12.9.2001 to 13.05.2002 Lecturer, S.N.D.T. (BCA) Matunga from 23.8.2001 to 8.9.2001. Lecturer, S.F.I.T. College of Engineering from 12.2.2001 to 24.7.2001. Lecturer, S.P. College of Engineering from 25.9.2000 to 15.1.2001 Lecturer, Kirti College from 1.9.2000 to 22.9.2000 	
Area of Specializations:	<ul style="list-style-type: none"> Mathematics, Ph.D. (Title of the thesis): SYSTEM OF NON-LINEAR EQUATIONS: CONSISTENCY ANALYSIS. M.Sc. Part I: Algebra I, Real Analysis, Topology, Complex Analysis, Combinatorial Techniques. M.Sc. Part II: Algebra II, Differential Equation, Differential Geometry, Differential Topology, Functional Analysis. 	
Subjects taught- Under-Graduate Level:	<ul style="list-style-type: none"> Complex Analysis. Differentiations: Ordinary, Partial and Successive with Application in detail including Maxima and Minima, Errors and Approximations and concept of Jacobian. Series, Expansion, Indeterminate forms. 	

- Vector Algebra, Vector Differentiation, Vector Integration.
- Vector Space.
- Multivariable Calculus.
- Fourier series, Fourier integrals, Fourier Transforms.
- Laplace transforms with Applications, Z- Transforms.
- Matrices.
- Discrete structures.
- Probability and Statistics.
- Optimization.
- Numerical Methods.
- Mathematical Programming.
- Application of SciLab.
- NMCP(Numerical Methods and 'C' Programming).

Subjects taught

**Post Graduate
Level:**

- Probability and statistics.

**Online Courses
Completed
(Coursera):**

- Introduction to Self-Driving Cars, University of Toronto and offered through Coursera - Advanced Level, November 29, 2021.
- The Importance of Listening, Northwestern University and offered through Coursera- Mixed Level, October 29, 2021.
- Measuring and Maximizing Impact of COVID-19 Contact Tracing, Johns Hopkins University and offered through Coursera- Advanced Level, October 25, 2021.
- Introduction to Big Data, University of California San Diego and offered through Coursera - Mixed Level, October 22, 2021.
- Finding Purpose and Meaning In Life: Living for What Matters Most, University of Michigan and offered through Coursera - Beginner Level, October 16, 2021.
- English for Science, Technology, Engineering and Mathematics, University of Pennsylvania and offered through Coursera- Beginner Level, October 15, 2021.
- Introduction to Data Analysis Using Excel, by Rice University, October 12, 2021.
- Know Thyself - The Value and Limits of Self-Knowledge: The Unconscious, The University of Edinburgh- Intermediate Level, October 1, 2021.
- Data Science for Business with R Programming, Guided Project by Coursera Community Project Network – No certificate – Advanced Level, September 29, 2021.
- Data Science Methodology, IBM- Beginner Level, September 27, 2021.
- Advanced Instructional Strategies in the Virtual Classroom, University of California, Irvine, September 16, 2021.
- Learning to Teach Online, UNSW Sydney (The University of New South Wales), 7 July 2020.
- Assignment in Higher Education: Professional Development for Teachers, Erasmus University Rotterdam, 10 July 2020.
- Introduction to Artificial Intelligence (AI), IBM, 13 July 2020.
- Machine Learning for All, University of London, 18 July 2020.
- A crash course in Data Science, Johns Hopkins University, 19 July 2020.
- Data Science in Real Life, Johns Hopkins University, 22 July 2020.
- Positive Psychology, The University of North Carolina at Chapel Hill, 24 July 2020.
- Building a Data Science Team, Johns Hopkins University, 26 July 2020.
- Managing Data Analysis, Johns Hopkins University, 28 July 2020.
- Executive Data Science, Johns Hopkins University, 29 July 2020.
- Developing An Entrepreneurial Mindset: First Step Towards Success, Michigan State University, 1 August 2020.
- Data Science Math Skills, Duke University, 7 August 2020.
- Introduction to Complex Analysis, Wesleyan University, 23 August 2020.
- Communication Strategies for a Virtual Age, University of Toronto, 30 August 2020.
- The Science of Well-Being, Yale University, 5 September 2020.
- Google Ads for Beginners, Coursera Project Network 8 September 2020.

- AI For Everyone, deeplearning.ai, 13 September 2020.
- COVID-19: What You Need to Know (CME Eligible), Osmosis, 19 September 2020.
- Neural Networks and Deep Learning, DeepLearning.AI, 30 September 2020.
- Building Students Math Skills with iKnowit, Project Network, 16 January 2021.

Professional Membership: Life Member of ISTE, New Delhi, (Membership No.120549).

Interaction with Professional Institutions:

- I have been invited to conduct an interview as the Subject Expert nominated by the University of Mumbai for the USSC on Tuesday, 5th August 2025, at Shree L. R. Tiwari College of Engineering.
- I have been invited as a judge for the Paper Presentation Competition organized by the Math Club of MPSTME-INSPIRE as a part of the POLARIZER event at MPSTME on Saturday 01 March 2025.
- Appointed as a Member of Board of Studies (Subject Expert) Applied Sciences and Humanities by the Academic Council of R. C. Patel Institute of Technology Shirpur. (An Autonomous Institute) for a tenure of three academic years received on 10/01/2025.
- I have been invited as the Subject Expert on the Selection Committee for the post of Assistant Professor, Mathematics at St. Francis Institute of Technology, Borivali (West) on Thursday, 09 May 2024.
- Delivered a session on "Cloud Computing and Big Data " on Tuesday 22 November 2022, for First Year and Second Year Diploma students in Vidyavardhini's Bhausaheb Vartak Polytechnic, Vasai Road, Dist.Palghar.
- Coordinating as a Mathematics subject in charge with RCPIT, Shirpur.

Edited Book/ Textbook/ Book Chapter/ Proceedings: Reviewed the content of the book and provided quality inputs for the improvement of title Applied Mathematics II (Mumbai University), Oxford University Press, November 2018.

Papers Presented in National Conferences:

- Participated in the National Seminar on "Contemporary issues in Higher Education" and presented paper entitled "Research on the formulation of nonlinear equations through optimization" at N.R.E.C. COLLEGE, KHURJA on 27 October 2017.
- Presented the research paper on "A MODERN METHODOLOGY FOR ANALYSING NON-LINEAR EQUATION STRUCTURES" at 15, Vivekananda Colony, Balwant Nagar, Gandhi Road, Gwalior MP on MARCH 2016, CIIS Mumbai in Association with IRC Gwalior.

Research papers published in Scopus Indexed Journals / UGC-CARE Approved journal:

1. Hrushik Mehta, Vraj Deriya, Darshana Sankhe, Pratik Kanani, Gayatri Pandya, Vishaka Shelke (2025). "Smart Bins, Smarter Cities: IoT-Driven waste collection with real-time sensing and methane mapping", Mathematical Modelling of Engineering Problems, Vol. 12, No. 6, pp. 2110-2122. ISSN:2369-0739
<https://doi.org/10.18280/mmep.120626>
2. Pratik Kanani, Neel Kothari, Lakshmi Kurup, Deepali Patil, Darshana Sankhe, Gayatri Pandya," Selective Hopping and Stable Path Integration to Boost AODV's Message Delivery Assurance" in International Research Journal Multidisciplinary. Technovation, EISSN: 2582-1040, Volume 7, Issue 3, Year 2025, 27-41.
<https://doi.org/10.54392/irjmt2533>
3. Snehal Bhosale, Darshana Nimesh Sankhe, Sandeep Musale, Gayatri Pandya, " Legal Challenges of Biometric Systems in Public Spaces: Surveillance vs. Privacy"

in Biometric Technology Today, ISSN (online): 1873-1880, Volume 2024, Issue 8.
<https://biometrictechnologytoday.com/index.php/journal/article/view/22/21>

4. Darshana Nimesh Sankhe, Sandeep Musale, Snehal Bhosale, Gayatri Pandya, "Biometric Data Breaches: Legal Consequences and Remedies for Victims" in Biometric Technology Today, ISSN (online): 1873-1880, Volume 2024, Issue 8.
<https://biometrictechnologytoday.com/index.php/journal/article/view/21/19>
5. Dr. Gayatri Pandya, "Consistency Analysis of Systems of Nonlinear Equations" in Tanz Research Journal, UGC-CARE Approved Group 'I' journal, ISSN NO: 1869-7720 Volume 10, Issue 8, August-2024.
<https://tanzresearch.com/volume-10-issue-8-2024/>
6. Dhrumil Panchal, Neel Kothari, Dhruv Gada, Pratik Kanani, Lakshmi Kurup, Darshana Sankhe, Gayatri Pandya, "MobileNet-Based Transfer Learning: A Novel Approach for Improved Alzheimer's Disease Classification from Brain Imaging" in International Journal of Intelligent Systems and Applications in Engineering IJISAE, 2024, 12(3), 2777–2783 | 2777.
<https://ijisae.org/index.php/IJISAE/article/view/5787>
7. Bhoomi Shah, Pratik Kanani, Poonam Joshi, Gayatri Pandya, Dhanashree Kulkarni, Nilesh Patil, Lakshmi Kurup "Traditional Indian Food Classification Using Shallow Convolutional Neural Network" in International Journal of Intelligent Systems and Applications in Engineering, IJISAE, 2024, 12(12s), 769–774.
<https://ijisae.org/index.php/IJISAE/article/view/4579>
8. Pratik Kanani, Jatinderkumar R. Saini, Darshana Sankhe, Deepali Patil, Gayatri Pandya, Archana Nanade, Bhoomi Shah, "Assessing AODV Protocol Suitability for Collision Avoidance Systems" in International Journal of Intelligent Systems and Applications in Engineering, IJISAE, 2024, 12(10s), 644–651.
<https://ijisae.org/index.php/IJISAE/article/view/4466>
9. Pratik Kanani, Anil Vasoya, Kamal Shah, Neel Kothari, Nilesh Patil, Gayatri Pandya, Mamta Padole, "Optimization of Health-as-a-Service Using OptiFog Algorithm" in International Journal of Intelligent Engineering and Systems, Vol.17, No.1, 2024, DOI: 10.22266/ijies2024.0229.36.
<https://inass.org/wp-content/uploads/2023/09/2024022936-2.pdf>

Programs Coordinated/ Chaired:

1. Organised Orientation Programme for the First-year enrolled students in the academic year 2020-2021 and 2021-2022.
2. Coordinator of the Faculty Development Programme on "Active Teaching Learning Strategies Using Innovative Technology", organized along with the Faculties of Applied Sciences and Humanities, Dwarkadas J. Sanghvi College of Engineering, Mumbai during February 25 – 26, 2019.

Short Term Training Undergone/ Programs Attended:

Courses attended:

1. Completed online Course on "Satellite Photogrammetry and its Application" conducted by Indian Institute of Remote Sensing (IIRS), during 29-06-2020 to 03-07-2020. Attended the course at IIRC outreach network centre, Dwarkadas J. Sanghvi College of Engineering.
2. Attended two weeks training programme on "Development of Basic Teaching competencies for engineering college teachers" (MHE – 3/OH) conducted by NITTTR, Bhopal from 2nd - 13th August 2004 at V.J.T.I, Mumbai

Workshops Attended:

1. Attended Online Faculty Orientation Program organised by Datta Meghe College of Engineering on behalf of the University of Mumbai for the subject Applied

Mathematics Thinking-I (Revised NEP 2020 Syllabus) for Semester III, IT Branch, on 14th July 2025.

2. Attended Online Faculty Orientation Programme on the subject Mathematics for Signal Analysis Sem-III S.E. (Electronics and Telecommunication Engineering) as per Rev. NEP 2020 Syllabus scheme, organised by Thadomal Shahani Engineering College, Bandra (W), Mumbai, On behalf of University of Mumbai On Saturday July 12, 2025.
3. Attended faculty orientation program for the subject of Applied Mathematics-I, Revised NEP 2020 Syllabus for First Year Engineering (Common to all branches) held at A. C. Patil College of Engineering on 30th July 2024.
4. Participation in one day workshop on "Applications of Microsoft Power Automate & Virtual Assistant for AI Educational Bots" conducted online on June 5,2021 organised by Department of Computer Engineering, Dwarkadas J. Sanghvi College of Engineering.
5. Attended Orientation Program for "Applied Mathematics" (Semester –III Computer Engineering & Information Technology) at Vidyalankar Institute of Technology on 27th July 2017, which was organized on behalf of University of Mumbai.
6. Attended the Orientation Programme on the revised syllabus of Applied Mathematics-I & II (All Branches) organized by Saraswati College of Eng. Kharghar, on 2nd August 2016.
7. Attended CREDIT AND GRADING SYSTEM workshop on 26th July 2012 at SPIT, Andrei (W).
8. Attended one day Orientation Programme on Mathematics Semester-IV New syllabus conducted by Mathematics Section of D.J. Sanghvi College of Eng. On 13th February 2009.
9. Attended two-day workshop on "Mathematics for engineers conducted by Mathematics section and Department of Electronics engineering of D.J. Sanghvi College of engineering on 6th &–7th Feb 2008.
10. Two day's Teacher's Training Programme on "Use of Scilab Tools in Engineering Mathematics on 24th & 25th Jan 2008 at Rajiv Gandhi Institute of Technology, Andheri (west).
11. Attended one week 4th workshop in Mathematic conducted by the Department of Mathematics during Dec 25th - 30th, 1997 at the IIT Powai.

STTP's:

1. Attended the one-week ISTE Approved Short Term Training Program (STTP) on "Applications of AI-ML-DL in Product Life Cycle Design and Management" organized by SVKM's Dwarkadas J. Sanghvi College of Engineering from July 22 to 26, 2024.
2. Completed ISTE Approved Short Term Training Program on "Digital Transformation in Teaching Learning Process" from 18-1-2021 to 22-1-2021, with passing score of 64%.
3. Completed an AICTE-ISTE Induction/Refresher Programme on "Innovative Teaching Learning Practices to Achieve Outcome Based Education and Accreditation" approved by ISTE during 3rd May 2018 to 9th May 2018 organized by department of Electronics Engineering at Sardar Patel Institute of Technology, Andheri(w), Mumbai.
4. Attended an AICTE-ISTE approved, Short Term Training Program on "Application of Mathematics in Engineering and Research" organized by St. Francis Institute of Technology, Borivali, Mumbai from 1st - 6th July 2017.
5. Attended one-week STTP on Digital Image processing with Matlab sessions" from 23rd - 27th June 2008 organized by Biomedical engineering department at D.J. Sanghvi college of engineering.
6. Attended one-week STTP on Effective communication and life skills" from 2nd - 6th June,2008 organized by communication skills section in association with department of electronics engineering at D.J. Sanghvi college of engineering.

FDP's:

1. Participated in the One Week AICTE ATAL Academy sponsored Faculty Development Program on "Ethical and Responsible AI: Harnessing XAI for India's

Economic Future", organized by SVKM's Dwarkadas J. Sanghvi College of Engineering scheduled from 14th to 19th July 2025.

2. Participated in IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION on January 20,2023 Jointly Organized by Intellectual Property Office and MoE's Innovation Cell, India.
3. Attended the Faculty Development Program on Industry Perspective on Cyber Security held on 27-Jan-2022 using Digital Platform by TCS.
4. FDP on Advanced Concepts of Outcomes-based Education organized by InPods Ed-tech on October 6,2021.
5. Participated in one week Faculty Development Programme on "Software tools for Mathematical Education" organised by Department of Mathematics, Bannari Amman Institute of Technology, Sathyamangalam and Providence College for Women, Coonoor, Tamil Nadu, India from 30th August to 05 September 2021.
6. Successfully completed one week online faculty Development Programme on "Scilab" organized under Spoken Tutorial Project, IIT Bombay, Funded by NMEICT, MHRD Govt. of India from 26th May 2020 to 30th May 2020 organized by the Department of Electronics & Telecommunication Engineering, Dwarkadas J. Sanghvi College of Engineering, Mumbai.
7. Participated in the online Faculty Development Programme held on 16th May 2020 on "FUZZY SETS AND SYSTEMS" Organized by DEPARTMENT OF MATHEMATICS (SHIFT – II), PATRICIAN COLLEGE OF ARTS AND SCIENCE, CHENNAI.
8. Successfully completed online Faculty Program on NBA on 5/13/2020, with a passing score of 90% organized by Bharati Vidyapeeth College of Engineering, Navi Mumbai-400614.
9. One-week Faculty Development Programme on 'Improving Teaching Learning Experience using Best Practices' held online from 15th June 2020 to 19th June 2020 organized by Dwarkadas J. Sanghvi College of Engineering.
10. Attended the Faculty Development Programme held on Online Teaching and E-Content on 11th & 12th June 2020 Organised by S. K. Somaiya college in association with IIDE.
11. Attended the Faculty Development Programme on "Active Teaching Learning Strategies Using Innovative Technology", organized by the Faculty of Applied Sciences and Humanities, Dwarkadas J. Sanghvi College of Engineering, Mumbai during February 25 – 26, 2019.

Webinars:

1. Attended the webinar on "Cybersecurity in the era of Digital Transformation" conducted online on August 24th ,2021 organised by Department of Computer Engineering, Dwarkadas J. Sanghvi College of Engineering.
2. Participated in the Faculty Development Program on Machine Learning & Deep Learning held on 15 Jun 2021 using Digital Platform organised by the internal IQAC and Society of Automotive Engineers (DJSCE SAE), Dwarkadas J. Sanghvi College of Engineering in collaboration with Tata Consultation Services (TCS) on 15th June 2021, Tuesday from 4 p.m. onwards.
3. Active participation as a Research Scholar in the Two days State Level webinar on "Recent Advances of Applied Physics, Applied Mathematics and Technical English" Sponsored by Gujarat Council on Science and Technology (GUJCOST), Gandhinagar organized by Department of H. & AS, Sardar Patel College of Engineering on 28-29 December 2020.
4. Attended one-day webinar on National Education Policy 2020 conducted on 22nd December 2020 Organised by Vivekanand Education Society's Institute of Technology, In association with VESIT IQAC and IIC.
5. Participated in Webinar on "Ramanujan and highly composite numbers" organized by Applied Science and Humanities Department, VPM's Maharshi Parshuram College of Engineering, Velneshwar on 22 December 2020.
6. Participating in Knimbus webinar on "Successful Research papers: Concepts to submission " held on 28th July 2020, Organised by Department of Library (Manubhai P. Sanghvi Knowledge Centre), D. J. Sanghvi College of Engineering.
7. Participating in Webinar on " Mathematica and Application of Mathematics "on 27th June 2020 - 29th June 2020 Organized by Department of Applied Sciences,

Mathematics and Humanities, Pillai College of Engineering, New Panvel, Maharashtra.

8. Participating in Webinar on "Air Pollution, Global Warming, Climate Change, Society and Sustainability" organized by Eco Club in association with Department of Humanities & Applied Sciences of K. C. College of Engineering & Management Studies & Research, Thane (E) on "World Environment Day" 05.06.2020.
9. Attended webinar on "Online Teaching & Learning and Its Effect on Social Life" organized by Department of Automobile Engineering, M.H. SABOO SIDDIK COLLEGE OF ENGINEERING on 4th June 2020.

Expert Talk:

1. Attended Expert talk on "Impact of Mathematics on Computer Applications" organised by the Department of Mathematics, SRMIST, Ramapuram, Chennai - 600089 on 12 June 2021.

Exhibition Participation: Participated in Mathematics Exhibition conducted by Patkar college, Goregaon (west) during year 1996-1997.

Other Responsibilities/ Assignments:

- Assigned responsibilities of mentoring (Part A) Section B (SSR) for Institutional Information in NAAC committee w.e.f.A.Y.2023-24, 2024-25.
- Served as a member of the Admission Committee for document verification up to the academic year 2013–2014, and again from 2022–2023 to 2025–2026.
- Served on the Vigilance Committee for the academic years 2023–2024, 2024–2025, and 2025–2026 to monitor the regularity and punctuality of lectures and practicals.
- Assigned the responsibility of Internal Auditor (Institute Level) in the Computer Department for the Odd Semester of the academic year 2024–2025.
- Assigned responsibilities as an NBA Committee Member for First Year Academics-related information on 13th December 2024.
- Designated for NBA responsibilities pertaining to First Year Academics (Institute-level criteria) on 17th September 2022.
- Served as a member of the Sports Committee for the academic years 2022–2023, 2023–2024, and 2024–2025.
- In charge of reviewing and verifying the course structure for First Year B.Tech. (Sem I & II – Autonomous) for A.Y. 2024–25 and 2025–26.
- Designed the Mathematics and Statistics curriculum for First Year and Second Year Engineering students across all branches under the DJ19, DJS22, DJS23, and DJR23 schemes.
- Assigned the responsibility of 'Mentor Guardian' for the students of Electronics and Telecommunication – E3 class from the academic year 2022–2023 to 2025–2026.
- Worked as First Year Timetable Coordinator from 2011 to 2022.
- Organized Orientation Programme for First Year enrolled students in the academic years 2020–2021 and 2021–2022.
- Coordinated the First Year Induction Programme during the academic years 2018–2019, 2019–2020, and 2021–2022.
- Working as Subject Coordinator for the Mathematics Section in the Department of Science and Humanities.
- Preparing the workload distribution for the Mathematics Section in Engineering.
- Subject Coordinator for NBA activities in Mathematics (Sem I & II): responsible for CO-PO mapping and course attainment documentation. Maintained attainment files for Computer and EXTC (A.Y. 2013–14 to 2019–20); currently maintaining for all First and Second Year branches.
- As Subject Coordinator, coordinating with the Exam Section by providing internal and external examiners for paper setting, as well as assessment and moderator lists. Also responsible for coordinating internal KT examinations for First Year and Second Year students, and managed Term Work and Term Test marks for all First-Year divisions prior to the institute attaining autonomous status.

- Arranged and conducted extra lectures for academically weak students, Direct Second Year diploma entrants, and late-admitted First Year students. Also conducted remedial classes for First and Second Year KT students.
- Lab In-charge – Second Floor Advanced Computer Lab: Coordinated placement activities, Mathematics tutorials, SciLab, and other departmental sessions.
- Organized FDP on “Active Teaching Learning Strategies Using Innovative Technology” on 25-26 February 2019.
- As per the instructions of higher authorities, prepared the Teaching Manual and Question Bank for Engineering Mathematics I & II for RCPIT College, Shirpur, and have been successfully coordinating the End Semester Examinations for First and Second Year Mathematics subjects at both institutes since the academic year 2020–2021.
- Providing motivation and recommendation letters to students pursuing higher studies, including M.S. programs.
- Guiding students in the preparation of entrance exams such as GATE and UPSC.
- Served as a member of the College Unfair Means Committee.
- Worked as Class In-charge and Mentor for First-Year students, addressing personal and academic difficulties faced by them during the semester.

Award Received: On 05.09.2011, received Best Teacher Award in the department for the academic year 2010-11.

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