



202-A, Plot-83, RSC-48 Gorai Shree Ganesh CHS Ltd Opp. Pragati School Gorai-2, Borivali (W) Mumbai-400092



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https://www.linkedin.com/in/dr-surendrarathod-a1734813/

https://www.facebook.com/surendra.rathod. 161/



https://www.instagram.com/ssrathod100/

https://twitter.com/surendr40192971

Xvui6MRIJA6WJ98Q

https://www.youtube.com/channel/UCeX4Iry

#### VISION

Develop myself as resourceful, helpful, skillful professionally competent teacher and always remain relevant by adopting lifelong learning attitude

#### SKILLS

VLSI Design and Technology, Embedded Systems, Neuromorphic Engineering, Design Thinking, Technology Law etc.

# SURENDRA SINGH RATHOD

#### **EDUCATION**

- Ph.D. (Semiconductor Device and VLSI Technology), IIT Roorkee in 2011
- M.E. (Electronics), VJTI, Mumbai University in 2006.
- B.E. (Electronics and Telecom), Amaravati University in 1997

#### **CORE VALUES**

Honesty, Integrity, Hard-work, Punctuality, and Quest for excellence

#### **LEADERSHIP**

**'Role Model'** by demonstrating **'Leading by Example'** attitude through behavior and actions for **making a difference in life** of individuals.

#### **PROFESSIONAL MEMBERSHIPS**

IEEE Senior Member (Member (90509971) FSAI Member (1803433): FSAI Bombay Section Student Chair ISTE Life Member (LM-32960) ISNT Life Member (LM-5968)

#### **EXPERIENCE**

9<sup>th</sup> Mar1998–24<sup>th</sup> Sep1999 Lecturer • F.C.R.I.T., Vashi

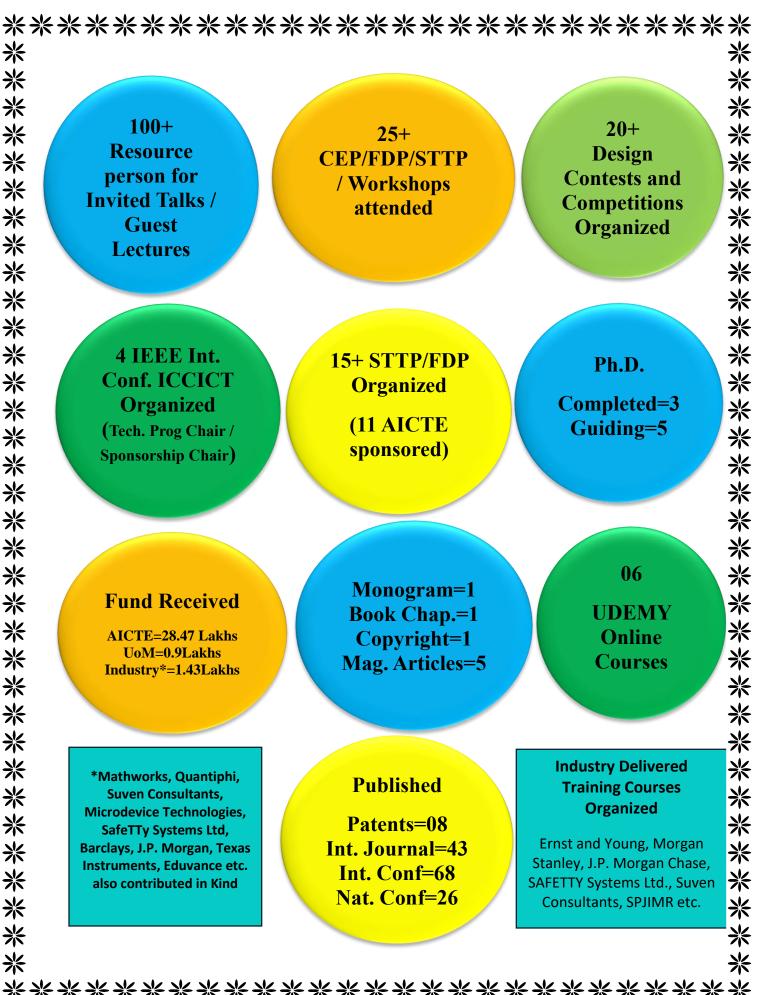
1<sup>st</sup> Oct 1999 Lecture • SPCE, Andheri(W), Mumbai

1<sup>st</sup> June 2007 [Approved from 19/01/2009] Assistant Prof (5<sup>th</sup> Pay) ● S.P.I.T. Andheri (West), Mumbai

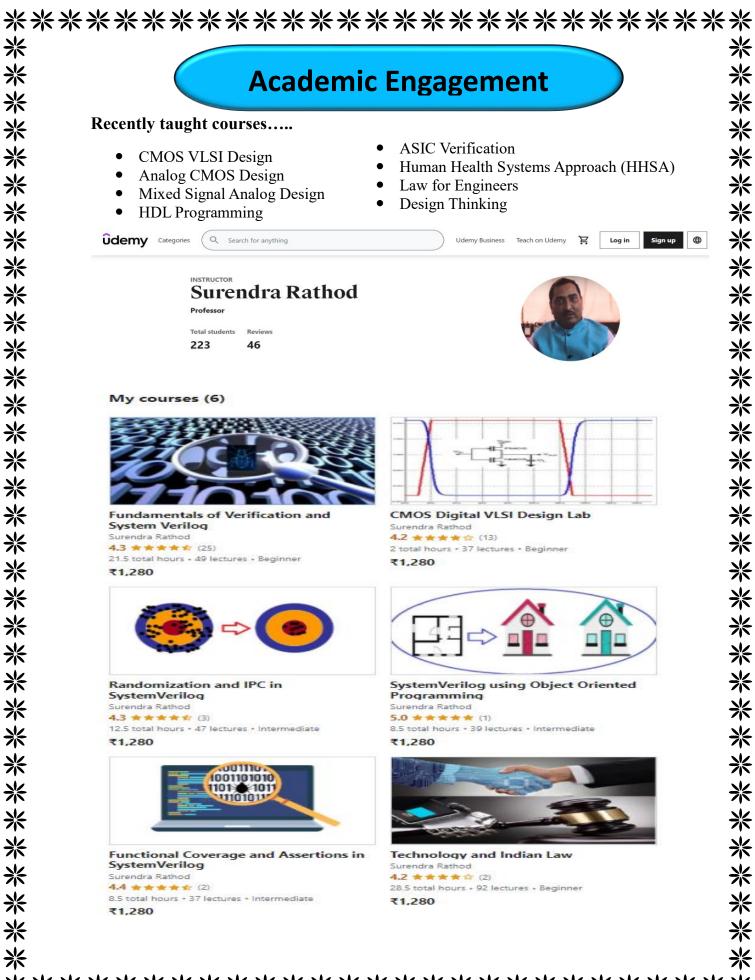
3<sup>rd</sup> Aug 2008–10<sup>th</sup> June 2011 Research Scholar • Indian Institute of Technology Roorkee

16<sup>th</sup> Mar 2012 [Approved from 29<sup>th</sup> July 2013]-till date Professor • S.P.I.T., Andheri (West), Mumbai

1<sup>st</sup> July 2022–till date Principal • Fr. Conceicao Rodrigues College of Engg, Bandra



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## **Major Administrative Responsibilities**

Organization	Designation	From	То	No. of Sem	Nature of Work	
SPIT	Member of GB	01-01- 2017	30-06- 2022	9	Participation in Policy Decision Making	
Bhavan's College	Management Representative on GB and CDC	27-11- 2019	Till Date	7	Participation in Policy Decision Making	
SPIT	Dean Academics (Member Secretary Academic Council)	01-01- 2017	20-08- 2019	5	Designandimplementationorcurriculum andorevaluation systemor	
SPIT	NBA Coordinator (Institute Level)	10-11- 2011	01-01- 2017	10	NBA accreditation related work	
SPIT	Head of Department	10-11- 2011	19-08- 2019	17	Administration of Department	
SPIT	Chairman DAB and BoS	01-07- 2012	20-08- 2019	16	Academic planning related work	
SPIT	Admission Committee Chair	2021 & 2022	Till Date	2 Yr	Planning & Execution of F Y BTech admissions	
SPIT	Convener	01-01-2017	Till Date	7	Grievance Committee	
SPIT	Member Exam Committee	01-01-2017	19-08- 2019	5	Exam related work	
SPIT and VJTI	RRC Member	30-06-2013	Till Date	10	PhD research committee member, assessment etc	
Mumbai University	Committee Chairman/ member	01-07-2011	30-05- 2017	14	Curriculum design, Loca Inquiry, paper setting Member of staff selection committee, PhD Viva-Voca Examinations	
Maharashtra Public Service Commission (MPSC)	Member Staff Selection Committee	01-07-2014	31-12- 2019	2	Interview Panelist for MPSC recruitments	
Many engineering colleges (FCRIT, SIES, CRCE, KCCoE, RGIT, AIKTC etc.)	Academic Auditor, DAB Member	2015	Till date		Department Academic audit	
Industries: Eduvance and Vanmat Technologies	National Advisory Panel	2014	Till date		Deliberations on EdTech Products	

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米 尜 尜 米 米 尜 **Few of the Honors and Awards** 尜 米 米 米 1) Received 'ISTE Best Engineering College Teacher Award for Maharashtra State" in year 2012. 米 \*\*

2) Received recognition as IUCEE (Indo Universal Collaboration for Engineering Education) Faculty Fellow for the year 2016.

3) Awarded as a Distinguished Professor by Computer Society of India (CSI) for successfully demonstrating innovative and outstanding teaching methodology, organized by **IITB**, 2017.

4) Awarded as a Distinguished HOD by Computer Society of India (CSI) for successfully demonstrating innovative and outstanding teaching methodology, organized by **IITB**, 2017.

5) Received 'Outstanding Achievement Award' for year 2007 by Energy Society of India and College of Engineering Pondicherry by his Excellency, Government of Pondicherry.

6) Awarded as 'Best Professor in Electronics Engineering' at 10th DNA Innovative Education Leadership Award organized by DNA and STARS Group.

Felicitated with Vocational Excellence Award 2020 by Rotary Club of Mumbai West Coast

8) Received 'Shiksha Rattan Award' and 'Certificate of Excellence" in year 2012 by International India Friendship Society, New Delhi from Mr. G. V. G. Krishnamoorthy (former Election Commissioner Govt. of India), Mr. Joginder Singh (CBI Director) and Mr. Ved Prakash (AICC Secretary).

9) Won First Prize for the Paper Titled "Single Event Upset Study of Helium and Argon on P+/EPI/N+ and SRAM Structure" in the National Conf., Mumbai on 14<sup>th</sup> March 2009.

10) Won Best Paper Award for the Paper Titled "VLSI Implementation of a Viterbi Decoder" in the National Conf. held at Government College of Engineering, Aurangabad on 23<sup>rd</sup> & 24<sup>th</sup> Jan 2006.

11) Won Best Paper Award for the Paper Titled "Design and Simulation of PC to SRAM Interface for Reconfigurable Processors" in the **National Conf.** held at **MIT**, Manipal on 11<sup>th</sup> & 12<sup>th</sup> Nov 2005.

12) Prize winner in Project/Competition by Institution of Engineers (India) held at Nagpur on 16<sup>th</sup> and 17<sup>th</sup> March 1997.

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## **Details of Doctoral Thesis Supervised**

- 1. Approved Ph.D. guide of Mumbai University for Electronics Engineering since 2015
- 米 2. Approved Ph.D. guide of Mumbai University for Electronics & Telecommunication 米 Engineering since 2013.

## Ph.D. Guided: Total=03

Name of Research Scholar	Title of Ph.D.	Year of Completion
Mr. Pramod Bhavarthe	Design of Compact Electromagnetic Band Gap Structures for Enhancement of Microstrip Patch Performances	2019
Mrs. Reena Sonkusare	Analysis of FinFET for analog performance and its application in analog circuit	2019
Mrs. Sushma Srivastava	Modeling of CNFET Based Neuromorphic Circuits	2019

### Present Research Scholars: Total=05

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S.N.	Name of Research Scholar	Title of Ph.D.
1	Mrs. Manisha Bansode	Design of Compact Electromagnetic Bandgap Structures for High Speed Signaling
2	Mrs. Payal Shah	Modeling and Design of Silicon Neurons and Synapse for Neuromorphic Chip Implementation
3	Mr. Vijay Kapure	Design of Metamaterial Structure for Triple Band-notch Ultrawideband Monopole Antenna
4	Mrs. Vidya Keshwani	Design of Compact Monopole Antenna with Low Specific Absorption Rate using Metamaterial
5	Mrs. Sejal Kadam	Investigation of 5G massive MIMO system performance with low resolution ADC and mixed ADC architectures

In last one year, PhD thesis are evaluated and worked as examiner for viva voce from RTM Nagpur University, Anna University, RK University, MG University Kerala, Punjab University etc. Also worked as Chairman for online Viva-voce PhD examination of two candidates of Mumbai University.

Reviewed research papers in many International Journals and conferences (VDAT NIT Surat, IBSSC IIIT Gwalior, TRIBES IIIT Raipur, ICF-CEET, ICAC3 etc.) Session Chair at TRIBES Raipur and Keynote speaker at ICF-CEET.

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Grant Received	**
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<ol> <li>Mumbai University Minor Research Grant of Rs. 30,000/ for the project "Determina Water Quality Parameters" in year 2016-17.</li> </ol>	ation of 💥
<ol> <li>Mumbai University Minor Research Grant of Rs. 35,000/ for the project "Labview Based Pressure Monitoring System" in year 2013-14.</li> </ol>	d Online 💥
<ol> <li>AICTE grant of Rs. 6.9 Lakhs for FDP on 'Electronic System Design: From devices to appli in year 2014-15.</li> </ol>	
<ol> <li>AICTE grant of Rs. 1 Lakh for National Seminar on 'Technologies for Development of Rura in year 2017-18.</li> </ol>	al Areas' 💥
5. AICTE-ISTE grant of Rs. 3 Lakhs for FDP on 'Innovative Teaching Learning Practices to Outcome Based Education and Accreditation' in year 2017-18.	Achieve 💥
6. AICTE grant of Rs. 3.62 Lakhs for STTP on 'Front End VLSI Design and Verification' in the F year 2018-19.	inancial 💥
<ol> <li>AICTE grant of Rs. 5.32 Lakhs for FDP on 'Consumer Electronic Product Design, Testing, Re and Patenting' in the Financial year 2018-19.</li> </ol>	eliability 🔆
8. Mumbai University Minor Research Grant of Rs. 25,000/ for the project "Automatic U Dryer" in year 2019-20.	mbrella 💥
<ol> <li>AICTE grant of Rs. 5.63 Lakhs for Two Week FDP on 'Insights into Intelligent Automation, N Learning and Data Science' in the Financial year 2019-20. (Ref. No. 34-67/17/FDC/FDP/ P- 20 dated 30-06-2020) [Three Two Week Online FDPs are conducted</li> </ol>	Machine 火
<ol> <li>FDP1-Foundations of data science: 19/10/2020 to 31/10/2020</li> <li>FDP2-Machine learning and artificial intelligence: 17/11/2020 to 29/11/2020</li> <li>FDP3-Data science and its applications: 07/12/2020 to 19/12/2020]</li> </ol>	* *
10. AICTE grant of Rs. 3.00 Lakhs for One Week STTP on 'VLSI Design Using Cadence Tools Financial year 2020-21. (Ref. No. 34-65/345/RIFD/STTP/Policv-1/2018-19 dated 10-0 [Three One Week Online STTPs are conducted	5' in the ** 1-2020)
<ol> <li>STTP1-Digital design and verification: 12/10/2020 to 17/10/2020,</li> <li>STTP2-Analog CMOS VLSI Design: 02/11/2020 to 07/11/2020,</li> </ol>	* *
<ol> <li>STTP3-Mixed Signal CMOS VLSI Design: 30/11/2020 to 05/12/2020]</li> <li>11. Funds received from various companies for ICCICT-2021 international conference</li> </ol>	
'Sponsorship Chair'. Quantiphi=Rs 1,00,000/, Mathworks Inc=Rs 25000, Suven Consulta 18,000/ Microdevice Technologies= In kind around 1 lakh and technical sponsorsh companies like Barclays, J.P.Morgan etc.	nts= Rs. 💥
Book Chapter Published: Gaurav Kaushal, Surendra S. Rathod, Ch Naga Raghuram, S	Sudeb 米
Dasgupta, "Radiation hard circuit design: flip-flop and SRAM" chapter 12 in IET book	"VLSI 💥
and Post-CMOS Electronics. Volume 2: Devices, circuits and intercon	nects"
doi:10.1049/PBCS073G_ch12	
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- S. S. Rathod, A. K. Saxena, and S. Dasgupta, "Modeling of Threshold Voltage, Mobility, Drain Current and Sub-threshold Leakage Current in Virgin and Irradiated Silicon-on-Insulator Fin-Shaped Field Effect Transistor Device," *AIP Journal of Applied Physics*, vol. 109, no. 8, pp. 084504-1-11, Apr. 2011.
- S. S. Rathod, A. K. Saxena, and S. Dasgupta, "Comparative Analysis of SEU in FinFET SRAM Cell's for Super-Threshold and Sub-Threshold Supply Voltage Operation," *IEEE Trans. on Electron Devices*, vol. 58, no. 10, pp. 3630-3634, Oct. 2011.
- Gaurav Kaushal, S. S. Rathod, Satish Maheshwaram, S. K. Manhas, A. K. Saxena, and S. Dasgupta, "Radiation Effects in Si-NW GAA FET and CMOS Inverter: A TCAD SimAnnexureulation Study," *IEEE Trans. on Electron Devices*, vol. 59, no. 5, pp. 1563-1566, May 2012.
- S. S. Rathod, A. K. Saxena, and S. Dasgupta, "A Proposed DG-FinFET based SRAM cell Design with RADHARD Capabilities," *Elsevier Microelectronics Reliability*, vol. 50, no. 8, pp. 1181-1188, Aug. 2010.
- S. S. Rathod, A. K. Saxena, and S. Dasgupta, "Electrical Performance Study of 25 nm Ω-FinFET under the Influence of Gamma Radiation: A 3D Simulation," *Elsevier Microelectronics Journal*, vol. 42, no. 1, pp. 165-172, Jan. 2011.



- 1. Reena Sonkusare, Omkar Joshi and S. S. Rathod "SOI FinFET Based Instrumentation Amplifier for Biomedical Applications," *Elsevier Microelectronics Journal*, vol. 91, no. 1, pp. 1-10, Sept. 2019.
- Pramod P. Bhavarthe, Surendra S. Rathod, and K. T. V. Reddy, "A Compact Dual Band Gap Electromagnetic Band Gap Structure," *IEEE Trans. on Antennas and Propagation*, Vol. 67, No. 1, pp. 596-600, Oct. 2018.
- Pramod Bhavarthe, Surendra Rathod and K.T.V. Reddy, "A Compact Two Via Hammer Spanner type Polarization Dependent Electromagnetic Band Gap Structure," *IEEE Microwave and Wireless Components Letters,* Vol. 28, No. 4, pp. 284-286, Apr 2018.
- 4. Pramod Bhavarthe, Surendra Rathod and K.T.V. Reddy, "Parametric Study for Rectangular Patch Antennas," *IEEE Microwave and Wireless Components Letters,* Vol. 27, No. 5, pp. 446-448, May 2017.
- Reena Sonkusare, P. Pilankar and S. S Rathod, "Analysis of subthreshold SOI FinFET based two stage OTA for low power," *Springer Analog Integrated Circuits and Signal Processing*, Vol. 96, pp. 1-13, Aug 2018

Monogram: Authored 'Domains of Learning' in eBook 'Understanding Outcome Based Education and Accreditation' Published by State Project Implementation Unit (SPIU)-Uttar

Pradesh and Institute of Engineering and Technology Dr. Bhimrao Ambedkar University

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Patents Published
1. Patent Title: VEHICLE EVENT RECORDER AND CRASH RECOVERY SYSTEM Inventor: Kankonkar Prateek, Ghadi Ameya, Patil Parth and Surendra Rathod Application No: 816/MUM/2015, Date of filing of Application: 13/03/2015, Publication Date: 17/11/2017
<ol> <li>Patent Name: A SYSTEM FOR RECORDING AND DISPLAYING.</li> <li>Inventor: Malia Viraj, Gala Jugal, Gupta Samiksha, Surendra Rathod</li> <li>Application No.4485/MUM/2015, Date of filing of Application:30/11/2015,</li> <li>Publication Date: 02/06/2017</li> </ol>
3. Patent Name: ULTRASONIC BROADBAND GENERATOR Inventor: Vakadkar Amogha, Rege Kunal,Thakur Rohan, Bhataria Manoj and Surendra Rathod, Application No.1401/MUM/2013, Date of filing of Application: 13/03/2015, Publication Date: 28/04/2017
4. A SYSTEM AND METHOD FOR ELECTRONIC SIGNATURE STAMP Inventor: Kharade Sanish, Kumar Amit, Mukne Ankita, Rathod Surendra Date of filing of Application: 13/06/2019
5. SYSTEM AND METHOD FOR UNASSISTED SEGREGATION OF PARCELS AND MAINTAINING THE TIME/DATE RECORDS AT POST OFFICES Inventor: Gupta Shreya, Dongre Isha, Govindayapalli Manasvi, Rathod Surendra Date of filing of Application: 13/06/2019
6. ELECTROMECHANICAL SYSTEM FOR SEGREGATION AND RECOVERY OF PLASTIC FROM SAND BEACH Inventor: Rathod Surendra, Haldankar Govind, Bhat Bhardwaj, Bath Tejveer Singh, Dhar Gopal Bhattacharjee Soumyadeb, Mainkar Yash, Gokhale Rutuja Application No.202021010812, Date of filing of Application: 13/03/2020, Publication Date: 02/04/2021
7. INTELLIGENT CONTROL SYSTEM TO DELIVER WATER FOR BATHING Inventor: Rathod Surendra and Dave Jenil Application No: 202221002564 Date of filing Application: 17/01/2022
8. AI POWERED SINGLE SWITCH BASED REMOTE HEALTH MONITORING SYSTEM FOR ELDERLY Inventor: Rathod Surendra and Kalbande Dhananjay Application No: 202321008008, Date of filing Application: 08/02/2023 Publication Date: 03/03/2023



# \* Meeting on lunch hosted by Mr. Aditya Thakre regarding discussion on plastic ban and garbage issue. Meeting with Delegation Netherlands about exchange. **Sparrow Day Celebration.**





MoU signed with Credit Suisse for **CS Lab Program Under SCOPE** 



Visit at Barclays for discussion on SCOPE and Semester long internship.

from student



ardar Patel Institute of Technology

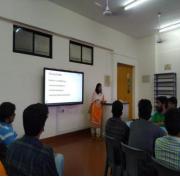




**AMDOCS** for discussion on

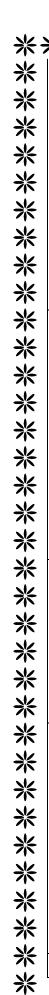
**SCOPE** and Semester long

Flip Class Room Infra.

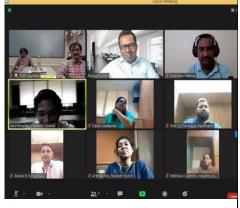








for FSAI Student Chapter



SEVA Activity after Ganesh Visarjan



**Tree Plantation** 



Series FY B.Tech Admission of **Counselling Webinars Arranged** 



Thakur School of Architecture, Finolex Academy of Management and Technology, Ratnagiri for FSAI Student Chapter installation.



SEVA Activity (Every Sat & Sun Beach Cleaning, Mithi River **Cleaning, Circular Economy and School Education** 



**Tree Plantation at Dahanu (300 Trees Planted this year)** 



गणेश भक्तांना सुरक्षा पुरविणाऱ्या गणेश मंडळांना सेवाभावी संस्थांक परस्कार

मुंबई, दि. २२ (प्रतिनिधी) सार्वजनिक गणेशोल्सवासाठी देशभरातून मुंबईत भाविक येत असतात. या नागरिकांच्या सुरक्षेसाठी पोलिसांसह इतर सर्व यंत्रणा सज्ज असतात, मात्र सर्वाधिक काळ मंडळाच्या मंडपामध्ये असलेल्या या भाविकांच्या सुरक्षेसाठी तेथील सुरक्षेबाबत अधिक सजग असणे आवश्यक आहे. मंबईतील गणेश मंडळे आवक चथा अच्य आवस्यक आत्यत्वक आतः, मुखरारा 194 मुख्य भाविकांच्या सुरक्षिततेच्या दुष्टीकोनातून आधुनिक तंत्रज्ञानाचा वापर करून अनेक चांगले उपक्रम राववीत असून आगीच्या घटना टाळण्यासाठी (भावर औड सिक्युरिटी असोसिएशन ऑफ इंडिया' या सेवामाबी संस्थेचे त्यांना सहकार्य लाभत आहे. 'फायर अँड सिक्युरिटी असोसिएशन ऑफ इंडिया' ही सेवामाबी संस्था गेली ७ वर्षे मुंबईतील गणेश मंडळांसीबत समन्वय साधून मुंबई पोलिस व मुंबई अग्नीशमन दल मदतीने गणेश मंडळांचे सुरक्षा ऑडिट करीत आहेत. स्पॉटला सीसीटीवी कॅमेरा लावणे, आग विझव साथनांची तपासणी, मेटल डिटेक्टर सुरक्षा यंत्रणा, योग्य अनेक बाबींचा विचार करून हे सेफ्टी ऑडिट राबविले जाते.

aldiabled

आहे.आमची संस्था २००२ सालापासून फायर प्रोटेक्शन, लाइफ सेफ्टी, सिक्युरिटी, बिल्डींग ऑटोमेशन, लॉस प्रिवेंशन

करीत आहे. मुंबईत तीन हजारहुन अधिक गणेश मंडळे असुन दरवाषी गणेशमुर्ती पाइण्यासाठी पर्यटक व मार्वकांची गहरी बढावरा आहे. आमप्या संदर्शनी मंपूर्ण मारतार २३ हुन अधिक चॅटर असून मुंबईतील या सामात्रिक उपक्रमाचे हे आठवे वर्ष असून गेल्याबर्षी २५० मंडळांनी यात सरमाग चेतला होता बाब्बी आमदी ८२० गरेब मंडळांचे रजीस्ट्रेयन फायर अँड सिक्युरिटी असोसिएरान ऑफ इंडिया मुंबई चॅप्टरचे अध्यक्ष अश्विन ईजंतकर यावेळी बोलताना म्हणाले, 'उत्सवादरम्यान बर कोणतीही आपतकालीन परिस्थिती उद्भवली तर् सरकारी यंत्रणांची मदत् पोहचेपर्यंत बचाव कार्य ल्या गणेश मंडळाकडू-

कसे करायचे याबाबत कार्यकर्ते प्रशिक्षित असणे आवश्यक केले आहे मुंबईतील नावाजलेल्या सकारात्मक प्रतिसाद लाभत आहे

आणि रिस्क मॅनेजमेंट या क्षेत्रात सरकारी संस्थांसोबत काम

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