

# DR. UJWALA M. BHANGALE

## PRESENT POSITION

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Working in KJSCE since July 2007

## INTEREST AREAS

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- ✓ Data exploration, analytics and Big data analytics
- ✓ High performance computing (Multi-core systems)
- ✓ Remote sensing data analytics (Satellite image processing and GIS)
- ✓ Database technologies

## PROFESSIONAL QUALIFICATION

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Ph.D.	2018	I.I.T. Bombay
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**Thesis:** Framework for Mining Massive Remote Sensing Data of Disasters using High Performance Computing Approaches

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Master of Engineering (Computer Engineering)	2008	Thadomal Shahani College of Engineering, Bandra, Mumbai.
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B. E (Computer Science and Engineering)	2000	M.I.T college of Engineering, Aurangabad
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## COURSES TAUGHT

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- ✓ **Under Graduate Courses:** Big data analytics, Parallel Computing, Data modeling, Database Technologies, Data warehousing and mining and Business Intelligence, Advanced database management systems, Geographical Information System, Computer Network.
- ✓ **Post Graduate Courses:** Information security compliance, Advanced Web Technologies, Application and Web security, Information Security and Risk management

## PUBLICATIONS

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- ✓ Bhangale, U. M., Durbha, S., Potnis, A. and Shinde, R.,(2019). Rapid Earthquake Damage Detection Using Deep Learning from VHR Remote Sensing Images. In IGARSS 2019-2019 IEEE International Geoscience and Remote Sensing Symposium, Yokohama, Japan, July 28- Aug 02, 2019, pp. 2654-2657.

- ✓ Patil S. M., Bhangale U. M., Khatri A. Gudkha S., Savala R. (2019). Rapid Flood Detection Using Remote Sensing Images, International Conference on Advances in Computing, Communication and Control (ICAC3'19) 6th Edition, Mumbai, India, 20-21 December 2019
- ✓ Toraskar T., Bhangale U. M., Patil S. M., More N., (2019) Efficient Computer Forensic Analysis Using Machine Learning Approaches, IEEE BOMBAY SECTION SIGNATURE CONFERENCE – IBSSC-2019, IIT Bombay, Victor Menezes Convention Centre (VMCC) | IIT Bombay, July 26-28, 2019
- ✓ Durbha, S.S., Kurte, K.R. & Bhangale U. Semantics and High Performance Computing Driven Approaches for Enhanced Exploitation of Earth Observation (EO) Data: State of the Art , Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci. (2017) 87: pp. 519–539
- ✓ Bhangale, U., Durbha, S. S., King, R. L., Younan, N. H., & Vatsavai, R. (2017). High performance GPU computing based approaches for oil spill detection from multi-temporal remote sensing data. Remote Sensing of Environment, 202, 28-44.
- ✓ Patil S. M., Bhangale U. M., More N., (2017). Comparative Study of Color Iris Recognition: DCT vs. Vector Quantization approaches in RGB and HSV Color Spaces, International conference on advances in Computing, Communication and Informatics (ICACCI 2017), Manipal University, Karnataka, India, 13-16 September 2017, pp. 1600-1603.
- ✓ Bhangale U. M., Rathod V., Rajgor N. Rami J., Kurte K. (2016). Identification of informal settlement using Remote Sensing Images. ACM Internatinoal conference on Advances on Information Communication Technology and Computing, August 12-13 2016, Bikaner, India. DOI: 10.1145/2979779.2979876
- ✓ Bhangale U.M., Kurte K. R., Durbha, S.S., King R. L., Younan N. H. (2016). Big data processing using HPC for remote sensing disaster data, IEEE conference on Geoscience and Remote Sensing (IGARSS), 2016, July 10-16 2016, Beijing, China. Pages: 5894 - 5897, DOI: 10.1109/IGARSS.2016.7730540
- ✓ Kurte K. R., Bhangale U.M., Durbha, S.S., King R. L., Younan N. H. (2016). Accelerating Big data processing chain in image information mining using a hybrid HPC approach, IEEE conference on Geoscience and Remote Sensing (IGARSS), 2016, July 10-16 2016, Beijing, China. Pages: 7597 -7600, DOI: 10.1109/IGARSS.2016.7730981
- ✓ Bhangale U.M., Durbha, S.S., (2015), “High performance SIFT feature Clustering of VHR satellite images for disaster management,” ACM Third International Symposium on Women in Computing and Informatics (WCI- 2015), Aug 10-13 2015, Kochi, Kerala, India, ISBN: 978-1-4503-3361-0 doi:10.1145/2791405.2791460
- ✓ Bhangale U.M., Durbha, S.S., (2014), “High performance SIFT feature classification of VHR satellite imagery for disaster management,” IEEE International Geoscience and Remote Sensing Symposium (IGARSS), 2014, July 13-18 2014, Quebec, Canada.
- ✓ Bhangale U.M., Durbha, S.S., (2014), “SIFT feature extraction from satellite imagery using GPU,” National conference on Application of Geoinformatics in Rural, Urban & Climatic Studies ,C.S.R.E., I.I.T. Bombay, Geomatrix 2014, Jun, 6-7 2014, Mumbai, India

- ✓ Bhangale U.M., Durbha, S.S., (2013), “Cloud detection in satellite imagery using graphics processing units”, IEEE International Geoscience and Remote Sensing Symposium-2013, July 2013, Melbourne, Australia.
- ✓ Bhangale U.M., Durbha, S.S., (2012), “Application of GPGPU for spatio-temporal detection and monitoring of oil spills”, IEEE International Geoscience and Remote Sensing Symposium (IGARSS), 2012, July 22-27 2012, Munich, Germany.
- ✓ Bhangale U.M., Durbha, S.S., (2012), “GPGPU driven hyperspectral data processing for disaster management”, International conference on Geospatial technologies and applications, Geomatrix 2012, I.I.T, Bombay, Feb. 26-28, 2012, Mumbai, India.
- ✓ Ms. Ujwala Bhangale, Jayant Gadge (2008), “Approximate Duplicate Record Detection for Data Warehouse”, International Conference On Managing Next Generation Software Application (MNGSA 2008) Coimbatore, Karunya University Dec. 05-06, 2008.

**CONFERENCES / SEMINARS / TRAINING PROGRAMS ORGANISED/  
ATTENDED / DELIVERED**

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**DELIVERED:**

- ✓ Delivered session on “Image processing with CUDA”, Information Technology Department, PCCOE, Pune, 25<sup>th</sup> Feb 2019
- ✓ Delivered session on “Knowledge based systems”, Department of Information Technology, K.J.S.C.E. Pune, 5<sup>th</sup> Feb 2019
- ✓ Delivered talk on “ High Performance Computing”, Government Polytechnic Thane, January 15, 2019
- ✓ Conducted the Data Science workshop at Techfest 2018, IIT Bombay during December 15-16, 2018
- ✓ Delivered talk on HPC applied to Remote sensing: Recent Development and Applications in IEEE GRSS event (Remote sensing and GIS in service of India’s Development), I.I.T. Bombay, India, 8-9 June 2017
- ✓ Delivered talk and hands on session on High Performance Computing Technologies (MPI, OpenMP) in STTP on “High Performance Computing with CUDA, MPI and Open MP”, Vidyalkar Institute of Technology , Wadala, Mumbai, 2nd February 2017
- ✓ Delivered expert talk on High Performance Computing , Computer Engineering Department, K.J.S.C.E. , 17<sup>th</sup> March 2016
- ✓ Delivered session on High Performance Computing Technologies for Big data analytics in STTP on “Big Data and Hadoop”, SNDT women’s University , Santacruz, Mumbai, 8<sup>th</sup> February 2016
- ✓ Delivered session on IOT analytics in STTP on “Internet of Things” , KJSCE, Vidyavihar , 8<sup>th</sup> January 2016
- ✓ Conducted GPU computing workshop in PCCOE , Pune, 5-6 November 2015

**COORDINATED:**

- ✓ Coordinated and attended Seminar on “Data Warehousing”, K.J.S.C.E., Oct.26 - 27, 2009
- ✓ Coordinated and attended Seminar on “ExtendSim”, K.J.S.C.E., Jan .15 - 16, 2009
- ✓ Coordinated and attended Seminar on “IBM-RSA”, K.J.S.C.E., Jan .12 - 14, 2009

**ATTENDED:**

- ✓ Attended IEEE International Geoscience and Remote Sensing Symposium 2019, Yokohama, Japan, Jul 27-Aug 02, 2019
- ✓ Attended AICTE-ISTE Induction/Refresher Programme on " Innovative Teaching Learning Practices to Achieve Outcome Based Education and Accreditation” organized by S.P.I.T. Andheri, 3-9 May 2018
- ✓ Attended Accenture Learning Symposium on Deep learning and DevOps, Mukesh Patel College of Technology and Engineering, Vileparle, Mumbai, 5-6 February 2018
- ✓ Attended 6<sup>th</sup> International conference on advances in Computing, Communication and Informatics (ICACCI 2017), Manipal University, Karnataka, India, 15-16 September 2017
- ✓ Attended ACM International conference on Advances on Information Communication Technology and Computing, Government Engineering College, Bikaner, India, 12-13 August 2016.
- ✓ Attended and worked as organizing committee member in National Symposium on Distributed and embedded High Performance Computing , I.I.T Bombay, 01- 04 June 2016
- ✓ Attended Faculty Development Program on “Big Data & Hadoop”, J.P. Morgan, Mumbai, Feb 2015
- ✓ Attended IEEE International Geoscience and Remote Sensing Symposium 2014, Quebec, Canada, Jul 13-18, 2014
- ✓ Attended National conference on Application of Geoinformatics (Geomatrix 2014), C.S.R.E, I.I.T. Bombay, Mumbai, Jun, 6-7 2014
- ✓ Attended Workshop on “GPU Programming and Applications (GPA-2014)”, I.I.T. Bombay, 24– 26 February 2014.
- ✓ Attended Workshop on “ Advanced Engineering Optimization Techniques”, KJSCE, Feb 2014
- ✓ Attended IEEE International Geoscience and Remote Sensing Symposium 2013, Melbourne, Australia , July 21-27, 2013
- ✓ Attended international conference on Geospatial technologies and applications (Geomatrix 12), C.S.R.E. I.I.T. Bombay, Mumbai, Feb. 26-28, 2012.
- ✓ Attended I.S.T.E Workshop on “Database Management System” in K.J.S.C.E Dec 13-23 , 2010.
- ✓ Attended Seminar on “Cloud Computing” in S.P.I.T, Jan 30 , 2010.
- ✓ Attended Workshop on “Rational Application Developer” , K.J.S.C.E., Jan. 18 - 21, 2010
- ✓ Attended Faculty Development program on “Internet Programming” in S.P.I.T ,Feb 7, 2009
- ✓ Attended Faculty Development Program on “Data Warehouse” in Accenture , Feb 2-3,2009

- ✓ Attended International Conference On Managing Next Generation Software Application (MNGSA 2008) Coimbatore, Karunya University, Dec. 05-06, 2008.
- ✓ Attended one week seminar and workshop on “Project Management” at K.J.S.C.E., Jan 14-18 2008.
- ✓ Attended one week seminar on “Software Engineering” at K.J.S.C.E., Dec 13,14,18 , 2007.

**POSITIONS OF RESPONSIBILITY: AT UNIVERSITY LEVEL / INDUSTRY / PROFESSIONAL ORGANISATIONS**

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- ✓ Life Member of Indian Society of Technical Education, New Delhi, India, since 2008.
- ✓ IEEE member

**PERSONAL DETAILS**

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<b>Year of Birth</b>	1979	<b>Languages</b>	English, Hindi, Marathi
<b>Email</b>	ujwalabhangale@somaiya.edu		