

Name of Teaching Staff	: DR. ARUNA UMESH GAWADE	
Designation	: Associate Head	
Department	: Computer Engineering	
Date of Joining the Institution	: 19.08.2004	
Email ID	: aruna.gawade@djsce.ac.in	
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Google Scholar Link	: https://scholar.google.com/citations?user=IMFy_ugAAAAJ&hl=en	
Researchgate Link:	: https://www.researchgate.net/scientific-contributions/Aruna-Gawade-2110753455	
ORCID	: https://orcid.org/0000-0001-8941-5381	
Publons Researcher ID	: https://publons.com/researcher/ABA-5103-2021	
Qualifications with Class / Grade	: <ol style="list-style-type: none"> 1. PhD (in Computer Engineering), Mumbai University, 2021 2. M.Tech. (Computer Engineering), First Class with Distinction, MPSTME,NMIMS, 2009 3. B.Tech. (Information Technology), First Class, UMIT, S.N.D.T. University, 2002 	
Total Experience in Years	: Teaching: 19 Years <ul style="list-style-type: none"> • D.J. Sanghvi College of Engineering (Mumbai University) Computer Engineering Department from August 2004 to Till Date • Fr. Conceicao Rodrigues College of Engineering. (Mumbai University) Information Technology Department from August 2003 to August 2004 • S. S. Jondhale College of Engineering (Mumbai University) Information Technology Department from Oct 2002 to August 2003 	
Papers Published in Journal:	: National: <ol style="list-style-type: none"> 1. “Traffic Light Control Algorithm for Intelligent Transport System” Journal of computer science and Engineering (JCSE) (2013) 2. “Applying parallel Genetic and considering proximity for Resource allocation in Cloud”, International Journal of Computer Science and Information Technology(IJCSIT) International: <ol style="list-style-type: none"> 1. "Investigating the preparedness for adaptive SCADA for efficiencies in energy utility companies" IJOART volume 2,Issue 5,May 2013, ISSN 2278-7763 2. “Optimization Of Traveling Salesman Problem For An Enterprise Resource Planning System”, IJCSE, Nov 2013, 3. “Intelligent Network Sniffer using Data Mining” International Journal of Computer science and Engineering(IJCSE) (Nov 2013) 	

4. "Neural Network Applications in Solar Irradiance prediction", International Journal of Computer science and Engineering(IJCSE) (Nov 2013)
5. "Cross Layer Techniques used for Improving TCP Performance in Wireless Networks: A Proposed Technique" ,International Journal of Computer Applications © 2014 by IJCA Journal Volume 108 - Number 11 Year: 2014
6. "Applications of Influence Propagation in Viral Marketing" ,International Journal of Innovations & Advancement in Computer Science January 2015
7. "Wireless Sensor Network Routing Algorithms – An Application based Survey", International Journal of Engineering Research & Technology Volume. 4 - Issue. 09 , September – 2015
8. "Overview on Generations of Network: 1G,2G,3G,4G,5G",Int.J.Computer Technology & Applications, Vol 5 (5),1789-1794,IJCTA | Sept-Oct 2014
9. "An Overview of Wireless Sensor Network Security Protocol and Applications", International journal of innovations and advancement in computer science(IJIACS)(Oct 2015)
10. "Mobile Image Offloading Using Cloud Computing", International Journal of Innovative Research in Computer and Communication Engineering (An ISO 3297: 2007 Certified Organization) Vol. 3, Issue 9, September 2015
11. "Securing Computer Device Using Bluetooth technology and One-Time Password" ,International Journal Of Engineering And Computer Science ISSN:2319-7242 Volume 4 Issue 4 April 2015, Page No. 11426-11429
12. "Priority mechanism for ant colony optimization in Network Routing", International Journal Of Engineering And Computer Science ISSN:2319-7242 Volume 4 Issue 4 April 2015, Page No. 11426-11429
13. "Parallel Quick Sort using Thread Pool Pattern", International Journal of Computer Applications February 18, 2016
14. "Internet of Things (IoT) for Medical Healthcare" ,International Journal of Innovations & Advancement in Computer Science (IJIACS),November 2015
15. Aruna Gawade, Dr. Narendra Shekokar. (2020), " PUF Based Authentication for Secure Data Transfer In Smart Grid", International Journal of Advanced Science and Technology, 29(10s), 7897-7907. Retrieved from <http://serisc.org/journals/index.php/IJAST/article/view/24223>
16. Aruna Gawade, Narendra Shekokar. (2020), " MITM Attack Prevention Using PUF Authentication in Smart Grid", International Journal of Advanced Science and Technology, 29(3), 12321 - 12331. Retrieved from <http://serisc.org/journals/index.php/IJAST/article/view/30323>
17. A Gawade, N Shekokar, "Preventing Cryptographic Attacks in IoT using Lightweight P-Box Permutation Encryption" , International Journal of Innovative Technology and Exploring Engineering (IJITEE), 2020, DOI: 10.35940/ijitee.F4128.049620

	<p>18. Aruna Gawade, 2020, “Validity and Integrity check in Supply Chain Management using Blockchain”, International Journal Of Engineering Research & Technology (IJERT) Volume 09, Issue 02 (February 2020),</p> <p>19. A Gawade, “Monitoring Medicine Delivery Supply Chain Using Blockchain With IoT”, Compliance Engineering Journal, UGC care approved group A journal, Vol.10, Issue11, November 2019</p>
<p>Papers Presented in Conferences</p>	<ol style="list-style-type: none"> 1. “Enviornmental Monitoring in IoT”,International Conference on current Trends in Computer, Electrical, Electronics and Communication(ICCTCEEC)-2017 2. “Dynamic Routing for Waste management using IoT for Cost Efficient service” International Conference on current Trends in Computer, Electrical, Electronics and Communication(ICCTCEEC)-2017 3. “Lightweight Authentication and Encryption mechanism in Routing protocol for Low power and lossy networks(RPL)”, International conference on Intelligent Computing and Control Systems(ICICCS 2018) 4. A. U. Gawade and N. M. Shekokar, "Lightweight Secure RPL: A Need in IoT," 2017 International Conference on Information Technology (ICIT), Bhubaneswar, 2017, pp. 214-219, doi: 10.1109/ICIT.2017.31. 5. Gawade, Aruna & Shekokar, Narendra. (2020), “Lightweight Cipher Using GRP Bit Permutation and Tweak”, 10.1007/978-3-030-16657-1_98. 6. A. Gawde, "Lightweight Authentication and Encryption Mechanism in Routing Protocol for Low Power and Lossy Networks (RPL)," 2018 Second International Conference on Intelligent Computing and Control Systems (ICICCS), Madurai, India, 2018, pp. 226-229, doi: 10.1109/ICCONS.2018.8663178. 7. Gawade, Aruna (2020). “Lightweight Random Number Generation for Elliptic Curve Cryptography for Use in IoT”, 10.1007/978-981-15-3242-9_7. 8. Gawade, Aruna. (2020), “Improvement of Lightweight Integrity Verification Algorithm Using TDHA”, 10.1007/978-981-15-3242-9_8. 9. Gawade, Aruna. (2020), “Automation in Healthcare Using IoT and Cryptographic Encryption Against DOS and MIM Attacks”, 10.1007/978-981-15-3242-9_10. 10. H. Raval, V. Shah and A. Gawade, "Park it: Intelligent Parking System," 2021 4th Biennial International Conference on Nascent Technologies in Engineering (ICNTE), 2021, pp. 1-7, doi: 10.1109/ICNTE51185.2021.9487728.(IEEE, scopus)
<p>Area of Specialization</p>	<p><u>Computer Networks,</u> <u>Internet of Things,</u> <u>operating Systems</u></p>

PhD Guide ? Give field & University	:	Field: University:	
PhDs / Projects Guided	:	PhDs : Projects at Masters level:	05
Books Published / IPRs / Patents	:	Books (Editors for conference Proceedings on Springer)	Chapter: 1. Gawade, Aruna & Shekokar, Narendra. (2020). Lightweight Secure Technology Future of Internet of Things. 10.1007/978-3-030-39047-1_14.
Professional Memberships	:		ACM
Grants fetched	:	Minor Research Grant (University of Mumbai)	
Interaction with Professional Institutions	:	Guest Lectures: Other Achievements and Responsibilities:	<ol style="list-style-type: none"> 1. Delivered Lecture on Operating Systems in SBMP 1. Selected for final round of 14th inter Collegiate/Institute/Department Avishkar research convention 2019-20 2. Garduino- A smart gardening system Guided by Prof. Aruna Gawade and secured CONSOLATION Rank at the Final Round of Inter-Collegiate / Institute / Department Avishkar Research Convention: organised on Virtual Platform by University of Mumbai on June 24, 2021.

Subjects Taught	<p><u>UG Level:</u></p> <ul style="list-style-type: none"> • Operating System • Computer Organization and Architecture • Digital Logic Design and applications • Computer Networks • Network Programming lab • Structured Programming approach • Analysis of Algorithms • Distributed Computing <p><u>PG Level:</u></p> <ul style="list-style-type: none"> • Advanced Algorithms and Complexity • Decision Making and Adaptive Business Intelligence • Open Source lab • Internet of Things 																						
Projects Guided	: <u>UG Level: 40+</u>																						
Recommended Students for Higher Education	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 30%;"><u>Name of the Student</u></th> <th style="text-align: left;"><u>University/Industry</u></th> </tr> </thead> <tbody> <tr> <td></td> <td>University of Southern California</td> </tr> <tr> <td></td> <td>University of California, Irvine</td> </tr> <tr> <td></td> <td>University of California, San Diego</td> </tr> <tr> <td></td> <td>Purdue University</td> </tr> <tr> <td></td> <td>University of California, Santa Barbara</td> </tr> <tr> <td></td> <td>University of Texas, Dallas</td> </tr> <tr> <td></td> <td>University of Illinois, Chicago</td> </tr> <tr> <td></td> <td>University of Minnesota, Twin Cities</td> </tr> <tr> <td></td> <td>University of North Carolina, Charlotte</td> </tr> <tr> <td></td> <td>University of Georgia</td> </tr> </tbody> </table>	<u>Name of the Student</u>	<u>University/Industry</u>		University of Southern California		University of California, Irvine		University of California, San Diego		Purdue University		University of California, Santa Barbara		University of Texas, Dallas		University of Illinois, Chicago		University of Minnesota, Twin Cities		University of North Carolina, Charlotte		University of Georgia
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	University of Georgia																						

Institute/Department
Responsibility handled:

- Worked as a NBA Co-ordinator in computer Engg. Department
- Worked as a NAAC Co-ordinator in computer Engg. Department
- Active participation as a co-ordinator of Software development team in college admission committee
- Co-ordinator of ACM chapter.
- Time table committee member for preparing timetable of first year all divisions.
- Co-ordinator for First Year computer Programming I and II subjects(2010-2020)
- Actively involved in Training and placement management software development with students.
- Actively involved in website development for college with students.
- Worked as a class In-charge and Lab In-charge
- Worked as Project review committee member
- Worked in Regularity and Monitoring Committee from July 2013 to Dec 2016.
- Represented College by participating in "Best Educational Quality Enhancement Team President Award 2010" organized by NCQM in 2011 and 2012.
- Part of the STTP organized by Computer Engineering Department in 2007.
- Active participation in handling sessions in NCICT 2008.
- Conducted workshops like Blender, Ethical Hacking etc. for students.
- Prepared notes in the subject of CP I and CP II for circulation to FE Students in the College for easy understanding of the subject
- Continuous guidance regarding higher education and career planning to the students
- Worked as an organizing committee member in STTP on "PRACTICAL INSIGHTS ON CLOUD COMPUTING" organized by Computer Engg. And IT Dept.
- Worked as publication chair for "ICACTA-2015" organized by Computer Engg. And IT Dept.
- Worked as a finance team in DJ-ASCII state level Project Competition.(2015-16 to 2019-20)
- Working as a mentor in DJ Code star programmers club.
- Worked as a class In-charge of SE, TE Computers.
- Working as a Lab In charge of Computer Graphics and multimedia Lab.
- Working as a mentor for SE, TE Computer Engg. Students.
- Worked as finance chair for "ICACTA-2020" organized by Computer Engg. And IT Dept.

As ACM coordinator conducted various workshops:

- Rubics (2013-14)
- PHP (2013-14)
- Machine Learning (2013-14)
- Blender(2013-14,2014-15,2015-16)
- Django(2015-16, 2016-17)

	<ul style="list-style-type: none"> • Wordpress (2016-17) • LoC: Lines of Code(24 Hour coding hackathon)(2018 onwards) • Organised DJHunt under ACM student chapter • Organised Placement101 under ACM student chapter <p>Conferences:</p> <ul style="list-style-type: none"> • ICACTA-2015 organized by Computer Engg. And IT Dept. • ICACTA-2020 organized by Computer Engg. And IT Dept.
Pedagogy Development	<ul style="list-style-type: none"> • Designed IoT (Sem VI) syllabus under autonomy • Designed Computer Networks (Sem IV) syllabus under autonomy • Designed Operating Systems (Sem IV) syllabus under autonomy • Designed Digital Electronics (Sem III) syllabus under autonomy