Name of Teaching Staff	: DR. ARUNA UMESH GAWADE			
Designation	Associate Professor			
Department	Head, Artificial Intelligence and machine			
r. r. r. r.	Learning Department			
Date of Joining the Institution	19.08.2004			
Email ID	: aruna.gawade@djsce.ac.in			
Office Contact	02242335000			
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	 PhD (in Computer Engineering), Mumbai University, 2021 M.Tech. (Computer Engineering), First Class with Distinction, MPSTME,NMIMS, 2009 B.Tech. (Information Technology), First Class, UMIT, S.N.D.T. University, 2002 			
Total Experience in	: Teaching: 21 Years			
Years	 Working as Asst. Professor with D.J. Sanghvi College of Engineering (Mumbai University) Computer Engineering Department from August 2004 Associate Professor and Head of Artificial Intelligence and machine learning department from 1st Dec 2022 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 			
Patents:	1 SMART NETWORKED STREET LIGHTING SYSTEM USING NON-CONVENTIONAL ENERGY SOURCES Patent application number: 202021002151 Filed: 17/01/2020 Published: 24/01/2020 Granted: 10/03/2023 Patent Number :424075 https://patentscope.wipo.int/search/en/detail.jsf?docId=IN283363870&_cid=P10-LBVQYS-39770-1 2 ONLINE EXAMINATION MONITORING DEVICE Patent application number: 202221068170 Filed:26/11/2022 Published: 16/12/2022 https://svkmmumbai-my.sharepoint.com/:b:/g/personal/kranti_ghag_djsce_ac_in/EYSmAqWbvzBIg4BESojRoa0BTuziva-nukk2ZwxmTvl52A?e=L8UxgJ			

Copyrights:		1.	Slidester – presentation generation using generative AI			
		2.	IRIS (AI THERAPIST)			
		3.	. Protective wallet case			
Papers Published in	:	Natio	National:			
Journal:		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)			
		Inter	rnational:			
		1.	Syed, M. R, Kothari, N, Joshi, Y, & Gawade, A (2023). EADDA: Towards Novel and Explainable Deep Learning for Early Alzheimer's Disease Diagnosis Using Autoencoders. International Journal of Intelligent Systems and Applications in Engineering, 11(4), 234–246. Retrieved from https://ijisae.org/index.php/IJISAE/article/view/3517.(Scopus Journal)			
		2.	Vijay Harkare, Riddhi Sanghani, Shruti Prasad, Sanika Ardekar, Aruna Gawade, Ramchandra Mangrulkar, "VRSS: A touch-to-vision-text-audio artificial multi-modal sensory system to demonstrate neural network processes", published in International Journal of Intelligent Systems and Applications in Engineering (IJISAE). [Scopus (Elsevier), Emerging Sources Citation Index, Q3(SJR:0.23), https://ijisae.org/index.php/IJISAE/article/view/3275/1861] .(Scopus Journal)			
		3.	Sumedh Vichare, Aruna Gawade, Ramchandra Mangrulkar, Qgen: A unique question generation and answer evaluation technique using natural language processing, Journal of Engineering Education Transformations, DOI: 10.16920/jeet/2024/v38i1/24180, Year: 2024, Volume: 38, Issue: 1, Pages: 122-135 (Scopus journal)			
		4.	Manasia, L., Bharmal, M., Singhvi, H., Mehta, G., Gawade, A., Rathod, N. & Florence, A. (2024). AI Drive Assist: Enhancing Road Safety through Advanced Road Sign Detection and Driver Alerts. Journal of Computer Science, 20(8), 885-897. https://doi.org/10.3844/jcssp.2024.885.89 (Scopus Journal)			
		5.	Dhairya Shah, Srikant Kamath, Smeet Ramani, Aruna Gawade, "Ethereumbased Quadratic Funding Of Public Commodities", Vol. 11, No. 3, pp. 1-12, "International Journal of Information Security Science", https://dergipark.org.tr/en/pub/ijiss/issue/72829 (UGC journal)			
		6.	Aryan Pathare, Ramchandra Mangrulkar, Kartik Suvarna, Aryan Parekh, Govind Thakur, Aruna Gawade, Comparison of tabular synthetic data generation techniques using propensity and cluster log metric, International			

	Journal of Information Management Data Insights, Volume 3, Issue 2,2023,100177, ISSN 2667-0968, https://doi.org/10.1016/j.jjimei.2023.100177.(Scopus Journal)
7.	Rathod, S., Rathod, N., Marathe, N., Gawade, A., Kundale, J. & Kulkarni, N. (2024). Efficient Detection of Palm and Hand Landmark for Speech Impaired People Using Mediapipe Model. Journal of Computer Science, 20(9), 997-1008. https://doi.org/10.3844/jcssp.2024.997.1008(Scopus Journal)
8.	Rathod, N, Gawade, A, Patil, K, Parekh, V, Shah, Y, & Shah, S (2024). Enhancing Recommender Systems: A Hybrid Approach for Precision Matchmaking in Digital Environments. International Journal of Intelligent Systems and Applications in Engineering, 12(16s), 571 – .Retrieved from https://ijisae.org/index.php/IJISAE/article/view/4895.(Scopus Journal)
9.	Yash Bhandari, Aruna Gawade, "Crop prediction system using machine learning", Journal of University of Shanghai for Science and Technology, Volume 24, Issue12, Paper ID: JUSST/22/09-36, DOI: 10.51201/JUSST/22/0936, Pages:299-303 (Scopus (Elsevier), UGC-CARE Group- II, Q4(SJR:0.11),
	A Gawade, N Shekokar, "PUF based authentication for secure data transfer in Smart Grid ",International Journal of Advanced Science and Technology(IJAST), Vol. 29 No. 10s (2020) pp. 7897-7907 ,http://sersc.org/journals/index.php/IJAST/article/view/24223, (Scopus Journal)
	A Gawade, N Shekokar, "MITM Attack Prevention Using PUF authentication in Smart Grid", International Journal of Advanced Science and Technology(IJAST), International Journal of Advanced Science and Technology Vol. 29, No. 03, (2020), pp. 12321 – 1233, http://sersc.org/journals/index.php/IJAST/article/view/30323 , (Scopus Journal)
12	Farhaan Jalia and Aruna Gawde, "Priority mechanism for ant colony optimization in Network Routing", International Journal Of Computer Sciences and Engineering, E-ISSN: 2347-2693 Volume 3 Issue 9 April 2015 (UGC)
13	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(UGC)
14	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

15	Aruna Gawade, et al. (2023). Remote Monitoring, Managing & Disease Detection of Plantation using IoT framework. International Journal
	on Recent and Innovation Trends in Computing and Communication, 11(9),
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16	Vismay Vora, et al. (2023). A Multimodal Approach for Detecting AI
	Generated Content using BERT and CNN. International Journal on Recent
	and Innovation Trends in Computing and Communication, 11(9), 691–701.
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17	Huda Mulani, Aruna Gawade, "Host Identity Protocol for End-to-End
	Security in IoT", International Journal of Science and Research(IJSR),
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18	Fariha Khan, Aruna Gawade. "Secure Data Management in Smart Meter as
	an Application of IoT", International Journal of Science and
	Research(IJSR), Volume 5 Issue 10, October 2016,1335-1337
19	Chintan Shah, Aruna Gawade, "Mobile Image Offloading Using Cloud
	Computing", International Journal of Innovative Research in Computer and
	Communication Engineering (An ISO 3297: 2007 Certified Organization)
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20	Somshubra Majumdar, Ishaan Jain and Aruna Gawade. Article: Parallel
	Quick Sort using Thread Pool Pattern. International Journal of Computer
	Applications 136(7):36-41, February 2016. Published by Foundation of
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21	Kanoongo, Bhavini & Sheth, Misha & Mehta, Parth & Gawade, Aruna.
	(2015). Applications of Influence Propagation in Viral Marketing.
	International Journal of Innovations & Advancement in Computer Science.
22	P. K. Mehta, M. S. Kale, M. C. Soni & A. Gawade, "Traffic Light Control
	Algorithm for Intelligent Transport System", Journal of computer science
	and Engineering (IASET:JCSE) Vol. 1, Issue 1, Jan - Jun 2016, 19-24
	(2016)
23	Gor, Pranav & Gosalia, Deep & Jhaveri, Rahil & Gawade, Aruna. (2020).
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	Blockchain. International Journal of Engineering Research and. V9.
	10.17577/IJERTV9IS020421.
24	Mrs Aruna Gawde, Sanchit Jain ,Mohsin Masani, Sahil Deliwala, "Securing
	Computer Device Using Bluetooth technology and OneTime Password"
	,International Journal Of Engineering And Computer Science ISSN:2319-
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25	Borkar, Mihir, Abhinav Garg and Aruna Gawade. "Wireless Sensor
	Network Routing Algorithms – an Application based Survey." <i>International</i>
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26	Vashi, Ami & Pawar, Akshay & Gawade, Aruna. (2014). Cross Layer
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	1 0

		Proposed Technique. International Journal of Computer Applications. 108.
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	27	Vivek Sanghvi Jain et al, "Overview on Generations of Network: 1G,2G,3G,4G,5G" Int.J.Computer Technology & Applications, Vol 5 (5),1789-1794,IJCTA Sept-Oct 2014
	28	Akhil Saokar, Shreyansh Jain, Aruna Gawade, "Solar Irradiation Prediction Using Neural Network", International Journal of Research in Engineering & Technology, (IMPACT: IJRET), ISSN(E): 2321-8843; ISSN(P): 2347-4599, Vol. 2, Issue 7, Jul 2014, 81-84
	29	Prof. G.T.Thampi, Prof. Aruna Gawade, "Investigating the preparedness for adaptive SCADA for efficiencies in energy utility companies" International Journal of Advancements in Research & Technology, Volume 2, Issue 5, M ay-2013,ISSN 2278-7763
	30	Chirag Jain , Richa Shah , Aruna Gawade, "Optimization Of Traveling Salesman Problem For An Enterprise Resource Planning System", International Journal of Computer Science and Engineering (IJCSE) ISSN(P): 2278-9960; ISSN(E): 2278-9979 Vol. 2, Issue 5, Nov 2013, 111-118
	31	Mitesh Jain & Aruna Gawade, "Intelligent Network Sniffer using Data Mining" International Journal of Computer Science and Engineering (IJCSE) ISSN(P): 2278-9960; ISSN(E): 2278-9979 Vol. 2, Issue 5, Nov 2013, 129-134
	32	AKHIL SAOKAR, SHREYANSH JAIN, ARUNA GAWADE & GOPAKUMARAN T. THAMPI, "Neural Network Applications in Solar Irradiance prediction", International Journal of Computer Science and Engineering (IJCSE) ISSN(P): 2278-9960; ISSN(E): 2278-9979 Vol. 2, Issue 5, Nov 2013, 81-88
Papers Presented in		
Conferences	1.	Gawade, A., Shekokar, N. (2020). Lightweight Cipher Using GRP Bit Permutation and Tweak. In: Abraham, A., Cherukuri, A., Melin, P., Gandhi, N. (eds) Intelligent Systems Design and Applications. ISDA 2018 2018. Advances in Intelligent Systems and Computing, vol 940. Springer, Cham. https://doi.org/10.1007/978-3-030-16657-1_98 (scopus)
	2.	A. U. Gawade and N. M. Shekokar, "Lightweight Secure RPL: A Need in IoT," 2017 International Conference on Information Technology (ICIT), 2017, pp. 214-219, doi: 10.1109/ICIT.2017.31. (scopus)
	3.	Pathare, A., Savliwala, B., Shekokar, N., Gawade, A. (2023). Similarity-Based Recommendation System Using K-Medoids Clustering. In: Chinara, S., Tripathy, A.K., Li, KC., Sahoo, J.P., Mishra, A.K. (eds) Advances in Distributed Computing and Machine Learning. Lecture Notes in Networks and Systems, vol 660. Springer, Singapore. https://doi.org/10.1007/978-981-99-1203-2_46 (Scopus Springer)

4.	Bhajaj, P., Panchal, P., Patel, N., Shinde, R., Gawade, A. (2022). FIGSI—
	Facial Image Generation for Suspect Identification. In: Shakya, S., Du,
	KL., Haoxiang, W. (eds) Proceedings of Second International
	Conference on Sustainable Expert Systems . Lecture Notes in Networks
	and Systems, vol 351. Springer, Singapore. https://doi.org/10.1007/978-
	981-16-7657-4_71(Scopus)(WoS)
5.	J. Shah, M. Shah, H. Gala, J. Hirpara and P. A. Gawade, "YouTube
	Assistant for Quick Navigation and Content Moderation," 2022 IEEE
	Fourth International Conference on Advances in Electronics, Computers
	and Communications (ICAECC), 2022, pp. 1-6, doi:
	10.1109/ICAECC54045.2022.9716634(Scopus)
6.	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(Scopus)
7.	P. Kamble and A. Gawade, "Digitalization of Healthcare with IoT and
	Cryptographic Encryption against DOS Attacks," 2019 International
	Conference on contemporary Computing and Informatics (IC3I), 2019,
	pp. 69-73, doi: 10.1109/IC3I46837.2019.9055531(Scopus)
8.	Khan, Fariha & Gawade, Prof. (2017). Dynamic Routing for Waste
	Management using IoT for Cost-Efficient Service. 222-230.
	10.1109/CTCEEC.2017.8455167(Scopus)(WoS)
9.	Mulani, Huda & Gawade, Aruna. (2017). Environmental Monitoring in
	IoT. 198-206. 10.1109/CTCEEC.2017.8455025(Scopus)(WoS)
10	A. Gawde, N. Sakariya, A. Shah and D. Poojary, "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),
	2018, pp. 226-229, doi: 10.1109/ICCONS.2018.8663178(Scopus)(WoS)
11	A Gawade, "Lightweight Random Number Generation for Elliptic Curve
	Cryptography for Use in IoT", Advanced Computing Technologies and
	Applications, 2020, DOI: <u>10.1007/978-981-15-3242-9_7</u>
12	A. Gawade, "Improvement of Lightweight Integrity Verification
	Algorithm using TDHA", Advanced Computing Technologies and
	Applications,2020 DOI: 10.1007/978-981-15-3242-9_8
13	A Gawade, "Automation in Healthcare Using IoT and Cryptographic
	Encryption Against DOS and MIM Attacks", Advanced Computing
	Technologies and Applications,2020, DOI: <u>10.1007/978-981-15-3242-</u> 9_10
	<u>/_10</u>

Area of Specialization PhD Guide ? Give field & University	:	Artificial Intelligence, Machine Learning, Computer Networks, Operating Systems, Internet of Things Field: University:		
PhDs / Projects Guided	:	PhDs: Projects at Masters level:	05	
Books Published / IPRs / Patents	:	Books (Editors for conference Proceedings on Springer)	3	Impact of Cyber Security Threats on IoT Applications by Aruna Gawade, Narendra M. Shekokar In M Shekokar, N., Vasudevan, H., Durbha, S.S., Michalas, A., P Nagarhalli, T., Sharad Mangrulkar, R., & Mangla, M. (Eds.). (2022). Cyber Security Threats and Challenges Facing Human Life (1st ed.). Chapman and Hall/CRC. https://doi.org/10.1201/9781003218555 Deep Neural Networks for Cybersecurity, by Bhavi Dave, Prof. Aruna Gawade Narendra M Shekokar, Hari Vasudevan, Surya S Durbha, Antonis Michalas, Tatwadarshi P Nagarhalli, Intelligent Approaches to Cyber Security (Copyright 2024) Gawade, A., Shekokar, N. (2020). Lightweight Secure Technology Future of Internet of Things. In: Dey, N., Mahalle, P., Shafi, P., Kimabahune, V., Hassanien, A. (eds) Internet of Things, Smart Computing and Technology: A Roadmap Ahead. Studies in Systems, Decision and Control, vol 266. Springer, Cham. https://doi.org/10.1007/978-3-030-39047-1_14 (scopus)
Professional Memberships	:		ACN ACN	A SIGAI
Grants fetched	:	Minor Research Grant (University of Mumbai)	+	

Interaction with Professional Institutions	Guest Lectures:	 Delivered Lecture on Operating Systems in SBMP Delivered talk on Artificial Intelligence in Mechtex Global Manufacturer and Exporter of Motors
	Other Achievements and Responsibilities:	Awards and recognitions: I excelled academically as a Topper in both the First and Final Years of my M.Tech at NMIMS University. During my tenure I have been recognized as the Best Teacher in the Department of Computer Engineering at DJSCE for the 2007-08 academic year and also received an Incentive Allowance for my loyalty and contributions to DJSCE. I also got selected for the final round of the 14th Avishkar Research Convention in 2019-20. My project group also secured a Consolation Rank for "Garduino-A Smart Gardening System" at the 2021 Avishkar Convention.
		NPTEL courses: Introduction to Machine Learning (2022), Introduction to Operating Systems (2021), The Joy of Computing using Python (2020), Introduction to internet of things (2020). FDPs: Intellectual Property Rights (2019), Insights of machine learning and deep learning (2018), Research areas in Internet of Things (2017), Practical insights to cloud computing (2016), Big data Analysis (2014). coursera courses: Linux Fundamentals (2022), Create Your First Multithreaded Application in Java(2022), Assessment in Higher Education: Professional Development for Teachers (2020), Learning to Teach Online (2020).
Subjects Taught	 Computer Net Structured Pro Distributed Co PG Level: Advanced Alg 	Design and applications works egramming approach

Projects Guided	:	UG Level: 40+	
Recommended Students for Higher Education		Name of the Student	 University/Industry 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

Institute/Department Responsibility handled:

- Working as a Head of AIML Department
- Vice Chairperson of Admission Committee
- 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)
- 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)
- Worked as a class In-charge of SE, TE Computers.
- Working as a mentor for SE, TE Computer Engg. Students.
- Organized Synergy hackthon under DJS ACM SIGAI Chapter
- Faculty Mentor of DJCODESTARS Programmers club, encouraged team to imbibe the importance of competitive coding through lecture series and coding competition.
- Treasurer of 2nd and 3rd International Conference on Advanced Computing Technologies and Applications organized by SVKMs Dwarkadas J. Sanghvi College of Engineering, 2020.
- Technical chair of 1st International Conference on Advanced Computing Technologies and Applications organized by SVKMs Dwarkadas J. Sanghvi College of Engineering, 2015.
- Treasurer of DJASCII- A State Level Project Competition from 2017 to 2022, organized by SVKMs Dwarkadas J. Sanghvi College of Engineering
- ACM student chapter Faculty Coordinator since 2018
- Project Coordinator and F.E. Subject Coordinator

	 I have played a pivotal role in organizing AICTE-ISTE approved STTPs on topics such as Smart Computing in July 2021, and various other FDPs focused on Intellectual Property Rights, Lateral Thinking, and the Internet of Things. Paper Setter in various subjects in the Branch of Computer Engineering for University of Mumbai. As BoS member at FR. CRCE, Bandra and Bhagubai college, and taking active participation in syllabus setting. Delivered talk on Operating systems in Bhagubai College.
	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) 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 Conferences: ICACTA-2015 organized by Computer Engg. And IT Dept.
	ICACTA-2020 organized by Computer Engg. And IT Dept.
Pedagogy Development	 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