GIDC DEGREE ENGINEERING COLLEGE
FACULTY PROFILE

Name of Teaching Staff	Dr. Archana Manan Nayak
Designation	Head of Computer Engineering Department
Department	Computer Engineering Department
Date of Joining	1/8/2012
Qualifications	Ph.D. (Computer Engineering)

Total Experience in Years	Teaching	Industry
	16 Years	-

Area of Interest	Soft Computing, Compiler Design, Database Management, Machine Learning, Object oriented Analysis and Design, Software Engineering, System Programming, Java – Advance Java , C Programming.

Papers Published in Journals	National	-	International	10
Detail Of Publication	1. "Solving Dynamic Traveling Salesman problem using ACO" International Journal of computer applications in engineering and technology and science (IJ-CA-ETS), Volume 2: Issue 1, October 2009(ISSN 0974-3596) 2. "Extensive Survey of Video Compression Technique "International Journal for Scientific Research & Development (IJSRD) Volume 3, Issue 6, August 2015 (ISSN: 2321 0613) 3. "Improvement in the strength of RSA algorithm using Bits Randomize" International Journal for Scientific Research & Development (IJSRD) Volume 3, Issue 6, August 2015 (ISSN: 2321 0613) 4. "A Modified Ant Colony Optimizer to Solve a Variant of Dynamic TSP" International Journal of Science Technology & Engineering(IJSTE) impact factor 3.905, Volume: 2, Issue: 11, June 2016 (ISSN: 2349-784X) 5. "Survey on Several Data Hiding Scheme for Encrypted Image by Reserving Space" International Journal for Innovative Research in Science & Technology (IJIRST) impact factor 3.559 Volume 3 | Issue 01 | June 2016 (ISSN: 2349-6010) 6. Nayak Archana, & Chaubey, N. (2020, March). Predicting Passenger Flow in BTS and MTS Using Hybrid Stacked Auto-encoder and Softmax Regression. In the International Conference on Computing Science, Communication and Security (pp. 29-41). Springer, Singapore. 7. Chaubey, N., Parikh, S., Amin, K., & Nayak, A. (2020, January). Predicting Passenger Flow in BTS and MTS Using Hybrid Stacked Auto-encoder and Softmax Regression. In Computing Science, Communication and Securityfirst International Conference, COMS2 2020, Gujarat, India, March 26–27, 2020, Revised Selected Papers (Vol. 1235, pp. 29-41). 8. Nayak Archana, & Chaubey, N." An Effective Demand based Optimal Route Generation in Transport System using DFCM and ABSO Approache"in International Journal of Advanced Computer Science Volume 13, Issue 6 June 2022. (DOI) : 10.14569/IJACSA.2022.0130678 9. Nayak Archana, & Chaubey Nirbhay "Intelligent Passenger Demand Prediction Based Re-Routing for Comfort Perception in Public Bus Transport Systems" has been accepted for publication in the International Journal of Communication Systems. (Publisher Wiley)dated 31-Aug-2022.Online ISSN:1099-1131 10. Nayak Archana, & Chaubey Nirbhay " Comprehensive Comparative Analysis of Passenger Demand Prediction for Improving the Urban Bus Transportation System (UBTS)" has been "Accepted for Publication" in the SSRG-International Journal of Engineering Trends and Technology (IJETT), ISSN: 2231-5381.			
Papers Presented in	National	1	International	2

Conferences		
Detail Of Publication	• "A Particle Swarm Optimizer to solve a variant of Dynamic TSP" National Women's Conference on Exploring Potentialities of Women in Engineering (EPWIE), 2009, CIT-Changa, Gujarat. • "Women Empowerment- a long struggle" International Conference on Women in science & technology: creating sustainable career, from 28th to 30th January,2016 organized by GTU in collaboration with BVM, VV Nagar.(ISBN- 978-93-84339-11-1) • "Predicting Passenger Flow in BTS and MTS Using Hybrid Stacked Auto-encoder and Softmax Regression" International Conference on Computing Science, Communication and Security, from 26th to 27th March,2020 organized by Ganpat University with Springer CCIS Series , vol 1235. Springer, Singapore.(ISBN- 978-981-15-6647-9)	
STTP/WORKSHOP/ CONFERENCE / SEMINAR Organized or Participated	**WORKSHOPS / SEMINARS ORGANIZED** 1. Coordinated the entire cultural event-GUNJ the echo of youth at GDEC for academic year 2012-2013. 2. Coordinated the entire cultural event-GUNJ the echo of youth at GDEC for academic year 2013-2014. 3. Organized & Coordinated Poster Presentation on Digital India under Digital India week at GDEC on 6th July,2015. 4. Organized an Expert lecture on "Awareness program on Digitization "under Digital India week at GDEC on 6th July,2015. 5. Organized & Coordinated the event of "Self defence program" under Women Empowerment week at GDEC on 11th August 2015. 6. Organized seminar on "Awareness of GATE Examination" at GDEC on 9th September,2015 7. Organized workshop on "Moodle-an Open Source Learning Platform" at GDEC on 19th September,2015. 8. Organized seminar on "Cisco Networking" for final year and pre-final students of Computer Engineering Department on 19th December, 2015 at GDEC. 9. Organized seminar on "Soft Skill Development" for final year and pre-final students of Computer Engineering Department on, 19th December, 2015 at GDEC. 10. Organized five days' workshop on "Soft Skill Development" for final year and pre-final students of Computer Engineering Department at GDEC from 28th March- 01st April,2016. 11. Organized the workshop on LibreOffice suite Calc for second year student of Computer Department at GDEC in collaboration with Spoken Tutorial Project-IIT Bombay under OSTC club on 09th July,2016. 12. Organized the workshop on PHP for final year student of Computer Department at GDEC in collaboration with Spoken Tutorial Project-IIT Bombay under OSTC club on 22nd August 2016.	

13. Organized & Coordinated the event of "Halla bol Season 2" under Women Empowerment week at GDEC on 22nd August, 2016.
14. Organized the workshop on Java for third year student of Computer Department at GDEC in collaboration with Spoken Tutorial Project-IIT Bombay under OSTC club on 30th August,2016.
15. Organized GUJCOST and GIL Sponsored one day workshop on "Start-Up & Innovation Protothon"at GDEC on 24th November 2017.
16. Coordinated the entire cultural event-GUNJ the echo of youth at GDEC for academic year 2016-2017.
17. Coordinated the Technical event-Udaan at GDEC for academic year 2018-2019 dated on 4th & 5th Oct, 2018.
18. Organized and Coordinated the Campus Recruitment Training Program (CRTP) for final year students at GDEC dated on 12th to 16th Feb, 2018.
19. Organized and Coordinated the Job Fair-2018 for final year students at GDEC dated on 23rd and 24th May, 2018.
20. Organized GTU Sponsored one week STTP on "Android Programming a hands-on approach" at GDEC from 24-28 December 2018.
21. Organized GUJCOST Sponsored one week STTP on "Designing embedded systems Enhanced with IoT using Micropython" at GDEC from 8-12 January 2019.
22. Organized Webinar on "Effective Presentation Skills" on 11th May 2020.
23. Organized Webinar on Image Processing : Pixel to Project on 17th June 2020.
24. Organized Webinar on Basics of Machine Learning and its Industrial Importance on 6 June 2020
25. Organized COVID-19 Awareness Competition for GDEC students(Events: COVID-19 Awareness Quiz, Painting Covid-19, Make Face Mask, Social Message Video, Make a Creative Slogan/ Tagline) on 15-10 June 2020.
26. Under Women Development cell, take initiative and install Sanitary Pad Vending Machines at the GDEC campus, with its Social initiative HASI FOR GIRLS (Health and Sanitation Initiation)
27. Under Women Development cell, Women's day was celebrated on 8 march 2022 at GIDC degree Engineering College, Various Activity like Slogan writing, poster making and photography.

WORKSHOPS / SEMINARS / STTP AND CONFERENCES ATTENDED

1. Attended a 3 days' workshop on "Data Warehousing and Data Mining" at Charotar Institute of Technology, Changa from 26 to 28th February,2007
2. Attended "One Day Symposium on Ant Colony Optimization" at GCET, VVNagar on 13th Sept, 2007
3. Attended "One Day Symposium on Net Beans" at GCET, VV Nagar on 17th

September,2008.

4. Attended a 2 days' workshop on "I2EE & Mobile Application" at DAICT, Gandhinagar from 27 to 28th September,2008.
5. One week STTP on "Machine Learning and Soft Computing techniques" AICTE Sponsored at SVNIT, Surat from 29th December,2008 to 2nd January 2009.
6. Attended a Seminar on "JAVA Programming" at GCET, VV Nagar on 5th February,2009.
7. Attended a Student Technical Awareness Conference at GCET, VV Nagar on 15th March,2009.
8. Attended a workshop on "Latex Software" at ADIT, VV Nagar on 27th August,2009.
9. Attended a Workshop on "Grid computing, Network security & Open Source Environment" at GCET, VV Nagar on 17th August,2010.
10. Attended a workshop on "Web Designing & Application" at LIT, Sarigam on 27th August,2011.
11. Attended a workshop on "Leadership Excellence" at GTU, Ahmedabad on 30th September,2011.
12. Attended a workshop on "Tribology" at GDEC, Abrama on 4th October,2013.
13. Attended one-day National Symposium on "Internet of Things" organized by department of Computer Engineering at GCET, VVNagar on 15th February 2016.
14. Attended one week STTP on Big Data Analytics (BDA 2016) at SVNIT, Surat during 27th June – 1st July, 2016.
15. Attended three-day National Symposium on "Recent Application and future scope of IoT" organized by department of Computer Engineering at GCET, VVNagar on 15th February 2016.
16. Attend Faculty Development Program - Webinar Internet of Things, 27th of September, 2017 organized by iON PRIDE(TCS)- 80171-3091070-13.
17. Attend Faculty Development Program - Webinar on Data Science, 13th of December, 2017 organized by iON PRIDE(TCS)- 85580-3203014-13.
18. Completed Successfully 6 month E-course- Smart Transportation for Smart Cities offered by Graduate School of Smart cities Development,GTU, Ahmedabad duration from Jan to July, 2018.
19. Attended three-day Workshop on "Recent Application and future scope of Internet of Things" organized by department of Computer Engineering at SCET, Surat dated on 2-4th August, 2018.
20. Attended AICTE sponsored 2 week FDP on Deep learning for visual computing at Charusat from 18 November to 29 November, 2019.
21. Attended TEQIP - III Sponsored Five-Days STTP on Recent Trends in IoTs and Cloud Computing (RT-IoTCC 2020) at SVNIT from 29-05-2020 to 03-06-2020.
22. Completed Successfully Two week Industrial Training on "ECMAScript" at Atyantik Technologies Pvt. Ltd. Baroda duration from 12 August 2020 to 31 August 2020
23. Attended One week ATAL FDP on "Internet of Things (IoT)" at BVM, V Nagar from 14-

		12-2020 to 18-12-2020 24. Attended AICTE Training And Learning (ATAL) FDP on "Role of IOT in Cyber Security" from 29/11/2021 to 03/12/2021 at Lakshmi Narain college of technology. 25. Attended AICTE Training And Learning (ATAL) FDP on "Internet on Things and its Application" from 04/10/2021 to 08/10/2021 at Gujarat Technological University - Graduate School of Engineering and Technology 26. Attended Faculty Development Program(FDP) on "Recent Research Trends and Applications of Artificial Intelligence and Machine Learning" Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI organised by E&ICT Academy, NIT Warangal and GCET, VV Nagar from 20th to 27th February, 2023
	Projects Guided	• TSP using Ant Colony Optimizer • Knapsack Problem solve using Ant Colony Optimization • Travelling Salesman Problem solve using Artificial Intelligence Techniques. • Central Placement System • Result Analysis Management • Interactive Touch Technology • E-mamta card system • Railway Employee tracking system • Industrial IOT • E - Kinder Garten • E- Yatra • Smart Water Management System based on IoT • Blockchain Based Voting System
	Books Published / IPRs/ Patents	• Dr. Archana Manan Nayak, "IOT Based chemical industrial grinder machine" UK Design Patent No. 6288659 (Granted). • Reviewed a book on Computer Programming and Utilization by Balagurusamy, published by McGraw Hill, Revised First Edition, 2014.
	Professional Memberships	• Life time member of ISTE Staff chapter: LM55806

Consultancy Activities		• Played a lead role in signing an Agreement on ION Project with Tata Consultancy Services Limited at GIDC Degree Engineering College. (which generated consistent revenue for college adding up-to more than Rs. 10 lakhs) • Played a lead role in signing a facility agreement with Aptech Ltd. for hosting the many exams at the college campus. (revenue generation around Rs. 59900) • Played a lead role in signing a facility agreement with NSEIT Ltd. for hosting the several exams at the college campus. (revenue generation around Rs. 345121) • Played a lead role in signing a facility agreement with Ace Integrated Solution Ltd., Bizzlon Management Solutions Pvt. Ltd, Satvat Infosol Pvt. Ltd., and Symlink Assessment Sol. Ltd. and Mudgil Networks & Allied Services for hosting the various exams at the college campus and generate revenue for the college.
Awards		• Certificates of Excellence achieved from GDEC Authorities for the good performance in subject result such as System Programming, Compiler Design, Advance Java, and Distributed System for the Academic year 2015-16. • Also achieved Certificates of Excellence from GDEC Authorities for other subjects such as Computer Programming & Utilization, Object oriented Analysis Design & UML, Object Oriented Concept & Programming in past year. • Award and Letter of Appreciation received from GDEC Authorities for the **Consultancy** work under Facility Agreement with Tata Consultancy Services (TCS) for Academic year 2017-18. • Award and Letter of Appreciation received from GDEC Authorities for Research Papers published in International Journal for Academic year 2017-18. • Letter of Appreciation received from GDEC Authorities for donation of books to our GDEC library.

Grants Fetched	- Played a lead role an acquired **a grant of Rs. 25,000 from GUJCOST** and **Rs. 20,000** from GIL, for conducting One day workshop on "Start-Up & Innovation Protothon" on 24th November 2017 at GDEC. - Played a lead role an acquired **a grant of Rs. 35,000** from Gujarat Technological University , for conducting a one week STTP on "Android Programming a hands-on approach" at GDEC from 24-28 December 2018. - Played a lead role an acquired **a grant of Rs. 40,000** from GUJCOST, for conducting a one week STTP on "Designing embedded systems Enhanced with IoT using Micropython" at GDEC from 8-12 January 2019. - Coordinator member of an event Navsari District Level Science fair on 29 and 30 December, 2022 funded (**a grant of Rs. 2 lakhs**) by GCERT, Gadhinagar and District Institute of Education and Training (DIET) Navsari and hosted by GIDC Degree Engineering College.
Administrative Responsibilities:	1. Currently working as, the Head of Computer Engineering Department at GIDC Degree Engineering College (since 1st August, 2012). 2. The Department comprises of 255 under graduate students, 12 Teaching faculty members and 4 supporting staff members. 3. Worked as In-Charge Principal at GIDC Degree Engineering College from 1st August,2012 till 21st July, 2013. 4. Currently a member of Time-table committee at GDEC. 5. Currently a member of Women Development Cell at GDEC. 6. Currently a member of Grievance committee at GDEC. 7. Currently a member of Anti-ragging committee at GDEC. 8. Currently a member of ST_SC cell at GDEC. 9. Currently a member of Sexual Harassment and Monitoring committee at GDEC. 10. Currently a member of SSIP committee as an Academic Expert at GDEC. 11. Currently a member of Admission Committee at GDEC. 12. Currently working as NBA Institute Coordinator at GDEC 13. Coordinate as a Centre Administrator on ION Project work with Tata Consultancy Services Limited (Ongoing Consultancies) at GDEC.

	14. Coordinate Training & placement cell of Computer Department at GDEC. 15. Coordinate Industrial visit of department at GDEC. 16. Coordinate GDEC college website. 17. Class Coordinator of Final year student admitted in academic year 2012-13 at GDEC. 18. Expert panel member for the Interview at LIT. 19. Worked as a Vice-Principal, Head of Computer & IT Department at Laxmi Institute of Technology (LIT), Sarigam 20. Worked as a member of Time-table Coordinator, Women Development Cell, Exam Coordinator, ACPC committee at LIT, Sarigam 21. Worked as a Project Coordinator, member of Academic committee at GCET, VV NAGAR 22.	
	Interaction with Professional Institutions	• Technical Program Committee member of International Conference on Computing Science, Communication and Security(COMS2) held on 26th and 27th March 2020, Ganpat University-- **Springer CCIS Series Conference** Proceedings (Indexing in Scopus, Web of Science, ACM DL, DBLP etc.) • Technical Program Committee member of International Conference on Computing Science, Communication and Security(COMS2) held on 6th and 7th February 2021, Ganpat University-- **Springer CCIS Series Conference** Proceedings (Indexing in Scopus, Web of Science, ACM DL, DBLP etc.)