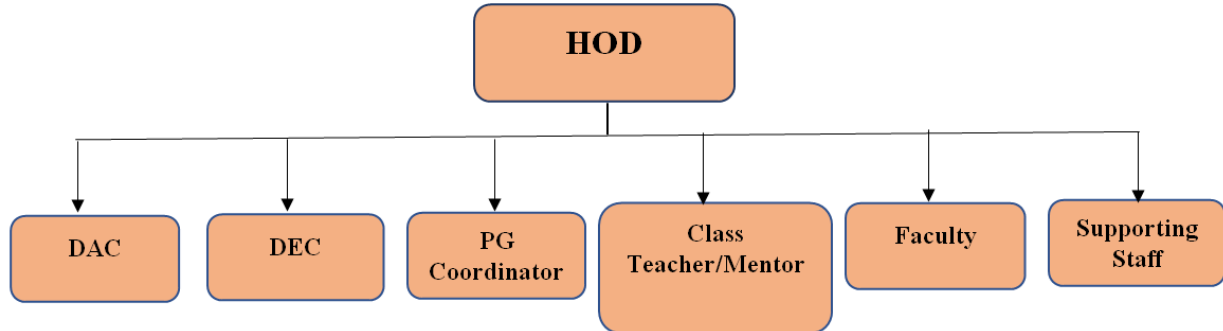


Department of Information Technology

Annual Report 2018-19

1 INSTITUTE, TEACHING, LEARNING & RESOURCES



1.1 Organizational Chart and Various Committees

1.2 Academic Programs and Admissions (Diversity) Details of AY 2018-19

1.3 Faculty (Regular & Contractual) Staff Strength for UG in 2018-19

Year	Professors	Associate Professors	Assistant Professors
2018-19	01	01	10

1.4 Faculty Position

S. No.	Name	Qualification	Date of Joining	Designation	Date on which Designated as Professor/ Associate Professor
1	Dinesh Balkrushna Kulkarni	Ph.D. M. Tech (CSE) M.E. (Electronics) B.E. Electronics)	20-12-1989	Professor	Designated as Professor 14-07-2009
2	Shefali Pratap Sonavane	Ph.D. M.E.(CSE) B.E.(CSE)	19-12-2001	Associate Professor	Designated as Associate Professor 13-02-2014

3	Anantkumar Janardan Umbarkar	Ph.D. M.E. (CSE) B.E. (C.E.)	30-10-2004	Asst. Professor	Designated as Asst. Professor 01-01-2016
4	Ravindra Ramkishan Rathod	Ph.D. M.E.(CSE) B.E.(CSE)	11-01-2004	Asst. Professor	Designated as Asst. Professor 01-01-2016
5	Umesh Balkrushna Chavan	M.E. (CSE) B.E. (CSE)	29-04-2009	Asst. Professor	Designated as Asst. Professor 01-01-2016
6	Bharati S. Shetty	M.Tech (CSE) B.E. (CSE)	09-01-2009	Asst. Professor	Designated as Asst. Professor 01-01-2016
7	Prashant Krishnarao Kharat	M.E (ELN) B.E.(ELN)	02-02-2009	Asst. Professor	Designated as Asst. Professor 01-01-2016
8	Manish Balaji Narnaware	M. Tech (CSE) B.E.(CSE)	21-04-2014	Asst. Professor	Designated as Asst. Professor 01-01-2016
10	Mayur G.Rathi	M. Tech (IT) B.E. (IT)	17-07-2017	Asst. Professor	--
11	Amruta M.Khot	M.Tech. (CSE) (BE (IT)	17-07-2017	Asst. Professor	--
12	Abhijeet A. Urunkar	M.E. (CE) B.E.(IT)	18-07-2017	Asst. Professor	--
13	Aditi D.Shinde	M.E. (CSE) B.E. (CSE)	29-07-2017	Asst. Professor	--

1.5 Library and Laboratory Facilities, Infrastructural Development

- **Department Library**

Total Books	Technical	Non-Technical
439	397	42

- **Laboratory**

Laboratory Information	
Programming Lab Lab In charge- Mrs. S. S. Shetty Lab Assistant- Mr. S. K. Suryawanshi	Intel® Core™ i5-4590 CPU @3.30 GHz 8.0 GB RAM 1TB HDD 64 bit Operating System, x64 based processor (18 qty)
Unix Lab Lab In charge- Dr. S.P.Sonavane Lab Assistant- Mr. S. K. Suryawanshi	Intel® Core™ i5-6500 CPU @3.20 GHz 8.0 GB RAM 1TB HDD 64 bit Operating System, x64 based processor (18 qty)
Project Lab	Intel® Core™ i5-7500 CPU @3.40 GHz 8.0 GB RAM 1TB HDD 64 bit Operating System, x64 based processor (18 qty)

Lab In charge- Mr. U. B. Chavan Lab Assistant- Mr. S. K. Suryawanshi	
Microprocessor Lab Lab In charge- Dr. P. K. Kharat Lab Assistant-Mr. V. S. Bhandare	Intel® Core™ i5-7500 CPU @3.40 GHz 8.0 GB RAM 1TB HDD 64 bit Operating System, x64 based processor (18 qty)
Multimedia Lab Lab In charge- Dr. P. K. Kharat Lab Assistant- Mr. V. S. Bhandare	Intel® Core™ i5-7500 CPU @3.40 GHz 8.0 GB RAM 1TB HDD 64 bit Operating System, x64 based processor (18 qty)
PG1 Lab In charge- Mr. M. B. Narnaware Lab Assistant- Mr. V. A. Kamble	HP ProDesk 400 G2 (18 Qty) PROCESSORS: Intel Core i7-4790 Processor CHIPSET : Intel 8 Series (H81 Express) Chipset GRAPHICS: NVIDIA GeForce® GT630 (2GB) STORAGE : 1 TB ,Media Card Reader HP USB Keyboard,HP USB Mouse
PG2 Lab In charge- Dr. R. R. Rathod Lab Assistant- Mr. V. A. Kamble	Dell Vostro 360 AIO Desktop Intel® Core™ i5-2400 @2.40 GHz 4GB RAM 500GB HDD (18 qty)
High Performance Computing Lab Lab In charge- Dr. D. B. Kulkarni Lab Assistant- Mr. V. A. Kamble	Supercom Server(3) Processor: AMD Petron(tm) Processor 6320 , 32 cores Ram: 16 GBHDD :2 TBSSD: 128 GB (Qty.3)
	8-port Non-blocking Unmanaged 40Gb/s InfiniBand Switch System
	HP BladeSystem c7000 Enclosure Device Bays 1-16Power Supply Bays 1-6Insight DisplayBladeSystem Onboard Administrator Interconnect Module BaysInsight Display
	2xAMD Opteron(tm) Processor 6344 (12 Cores)Ram:148 GB
	HP MSA 2040 SAN Storage: 10.2 TB
	HP Proliant DL785 G5 Processor: (4) AMD Opteron Processor 8387, Quad-Core (2.80 GHz)Cache Memory 512KB Level 2 Cache per CoreMemory 32 GB (8 x 4GB) of PC2-6400 DDR SDRAM (Standard) Multifunction Gigabit Network AdaptersStorage Controller HP Smart Array Internal Storage 8.0TB max (16 x 500GB SAS
	Dell PowerEdge R715. Processors: AMD Opteron™ 6344 Ram: 32 GB

1.6 Sports and Extra-Curricular Facilities

1.7 Facilities for Physically Challenged students

2 RESEARCH, PROFESSIONAL PRACTICE & COLLABORATIVE PERFORMANCE

2.1 Individual and Collaborative Research Publications and Citations; and Ph.D. Guided Research Publications

Publications:

Sr · N o.	Title of the paper	Name of the author	Title of the journal	Year of publication	Issue Date
1	Multi-GPU approach for development of parallel and scalable pub-sub system	M. A. Shah, Dr. D. B. Kulkarni	Advances in Intelligent Systems and Computing	2018-19	Chapter Jan 2019 DOI: 10.1007/978-981-13-1513-8_49 ISBN: 978-981-13-1512-1 ISBN: 2194-5357
2	PF-FELM: A Robust PCA Feature Selection for Fuzzy Extreme Learning Machine	A. P. Kale, Dr.S. P.Sonavane.	IEEE Journal on Selected Topics in Signal Processing	2018-19	Article Oct 2018 DOI: 10.1109/JSTSP.2018.2873988 ISBN: 1932-4553
3	Performance evaluation of runner-root algorithm on CEC 2013 benchmark functions	Dr. A. J. Umbarkar, Dr. A. C. Adamuthe, S.M. Nale	Advances in Intelligent Systems and Computing	2018-19	Chapter Jan 2019 DOI: 10.1007/978-981-13-1592-3_76 ISBN: 978-981-13-1591-6, 12/14/2018
4	Congestion controlling schemes for high-speed data networks: A survey	P. K. Kharat, M. Kulkarni	Journal of High Speed Networks	2018-19	Article Feb 2019 DOI: 10.3233/JHS-190602 ISBN: 0926-6801

5	Modified QUIC protocol for improved network performance and comparison with QUIC and TCP	P. K. Kharat, M. Kulkarni	International Journal of Internet Protocol Technology	2018-19	Article Jan 2019 DOI: 10.1504/ IJIPT.2019.1001 9902 ISBN: 1743-8209
6	Heterogeneous leach protocol with sink node protection in a wireless sensor network	B Pawde, B. S. Shetty	ICTACT Journal On Communication Technology,	2018-19	Article Jun 2019 DOI: 10.21917/ ijct.2019.0294
7	A comprehensive Dialogue for U-Body Sensor Network(UBSN) with experimental case study	Dr.S. P. Sonavane, S. G. Tamhankar, M. G. Rathi	Book Chapter in "Sensor for Health Monitor", Chapter 3, Elsevier Publication, Volume 4.	2018-19	Chapter Jan 2019 DOI: 10.1016/B978-0-12-819361-7.00003-8 ISBN: 9780128193617
8	Performance issues of parallel, scalable convolutional neural networks in deep learning	U. B. Chavan, Dr. D. B. Kulkarni	Advances in Intelligent Systems and Computing	2018-19	Chapter Jan 2019 DOI: 10.1007/978-981-13-1513-8_35 ISBN: 978-981-13-1512-1 ISBN: 2194-5357, 9/13/2018
9	A review of dimensionality reduction in high-dimensional data using multi-core and many-core architecture	S. V. Patil, Dr. D. B. Kulkarni.	Communications in Computer and Information Science	2018-19	Chapter Apr 2019 DOI: 10.1007/978-981-13-7729-7_4 ISBN: 978-981-13-7728-0, 4/10/2019
10	Design and Development of Integrated Deep Convolution Neural Network Approach for Handling	A. J. Shikalgar, Dr. S. P. Sonavane	Proceedings - 2019 Amity International Conference on Artificial Intelligence, AICAI 2019, Conference Paper Feb 2019DOI:	2018-19	4-6 Feb. 2019

	Heterogeneous Medical Data		10.1109/AICAI.2019.8701358,		
11	IoT based Smart Farming: Feature subset selection for optimized high-dimensional data using improved GA based approach for ELM	A. P. Kale, Dr.S. P.Sonavane	Computers and Electronics in Agriculture,Article Aug 2018DOI: 10.1007/s13042-018-0859-9ISBN: 1868-8071	2018-19	Jun-19
12	Identification and Removal of Accident-Prone Locations Using Spatial Data Mining	RA Mestri, Dr.R. R Rathod, R. D.Garg	Applications of Geomatics in Civil Engineering, Chapter Jan 2020 DOI: 10.1007/978-981-13-7067-0_29 ISBN: 978-981-13-7066-3,	2018-19	6/20/2019
13	A decision support system using analytical hierarchy process for student-teacher-industry expectation perspective	S. S. Pawar, Dr. R. R. Rathod.	Advances in Intelligent Systems and Computing	2018	
14	Design of Password Guessing Prevention Protocol for Levelled-Security System	R. L.Bagad, A. N. Magar, S. N. Mali, Dr.R. R.Rathod	Helix 8 (5)	2018	

Citations:

Name of Faculty	Designation	Google Scholar							
		2015 Onwards			All			No. of Publications	
		Citations (since 2015)	h-Index	i-10 Index	Citations	h-index	i-10 index	Cited	Reported
Dr. Dinesh Balkrushna Kulkarni	Professor	53	4	1	75	5	2	18	27
Dr. Shefali Pratap Sonavane	Associate Professor	72	5	2	79	5	3	19	42
Dr. Anantkumar Janardan Umbarkar	Assistant Professor	307	8	8	325	9	9	26	37
Dr. Ravindra Ramkishan Rathod	Assistant Professor	36	2	1	36	2	1	2	5
Umesh Balkrushna Chavan	Assistant Professor	24	2	1	26	2	1	7	13
Bharati S. Shetty	Assistant Professor	12	2	0	19	2	1	2	17
Dr. Prashant Krishnarao Kharat	Assistant Professor	42	4	0	51	5	1	11	16
Manish Balaji Narnaware	Assistant Professor	37	2	1	45	2	1	7	12
Mayur G.Rathi	Assistant Professor	2	1	0	2	1	-	2	4
Amruta M.Khot	Assistant Professor	-	-	-	-	-	-	-	-
Abhijeet A. Urunkar	Assistant Professor	-	-	-	-	-	-	-	-
Aditi D.Shinde	Assistant Professor	-	-	-	-	-	-	-	-

● **PhD Guided and awarded under the guidance:**

Name of Guide	Name and organization of Candidate	Awarded Year	Title of Thesis

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2.2 IPR and Patents: Granted, Filed and Licensed Intellectual property (IPR):

Name	Applied Year	Current Status	Title of Invention	Ref. No
Dr. A. J. Umbarkar	2018	Published, waiting for examination	A method for vehicle monitoring system using Radio Frequency Identification (RFID) based data acquisition system	Ref. No./Application No.: 201821021439

2.3 Footprint of Projects and Professional Practices (Testing and Consultancy)

Name of Consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)	Year

3 GRADUATION OUTCOME

3.1 Students' Mentoring and Support

3.2 Combined Performance in Public and University

3.3 Combined Percentage for Placement, Higher Studies and Entrepreneurship

3.4 Extra-Curricular Activities and other Achievements

Extra-Curricular Activities:

Achievement of Teachers			
Year of award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2018-19	Dr.S.P.Sonavane (National level)	Associate Professor	Honor as Academic Advisor by Nation Cyber Safety Security Standards India
	Mr. M. B. Narnaware	Assistant Professor	1. Coursera Certification: Introduction to TensorFlow for Artificial Intelligence, Machine

			Learning, and Deep Learning 2. FDP NPTEL Course on DEEP LEARNING
	Dr. P K Kharat	Assistant Professor	PhD from NIT Suratkal

Sr. No.	Name of student/s	Achievement
2018-19		
1	Ganesh Radhaji Sanap. Gunjan S. Singh. Nikita U. Khandave. Abhishek Udata Mohit Gholake Pranav Kulkarni	Smart India Hackathon 2019 by MHRD (Winner, Rs 75000/-)
2	Kaivalya Mendki	Smart India Hackathon 2019 by MHRD (Winner Rs 75000/-)
3	Kaivalya Mendki Abhishek Kotkar	HackathonPune 2018 by e-Zest Solutions and Fresco Capital
4	Abhishek R. Kotkar Aadish D. Deshpande	Technical Championship MindSpark'18 , COEP 28th to 30th September

4 OUTREACH AND INCLUSIVITY

4.1 FDPs/Guest Lecture/Conference etc. organized and Attended by Faculty and Staff

Seminars/Conferences/Workshop/ symposia organized during the years

Sr. No.	Name of Faculty	Title	National/International	Seminars/Conferences/Workshop/ symposia	Date(s)
2018-19					
1	IT and CSE Department faculty	RSC 2018	National	Symposia	19-21 December 2018
2	Mr. M. G. Rathi	Embedding Intelligence in IOT Edge in association with IEEE, Computer Society	National	Workshop	28th and 29th July 2018
3	Mr. A. A. Urunkar	Introduction to AI and	National	Workshop	6-7 October, 2018

		ML for Developing IoT Applications ”			
4	Mr. M. B. Narnaware	Introduction to AI & ML	National	Workshop	12-14 Jan, 2019

Seminars/Conferences/Workshop/ symposia attended during the year

Name of Faculty	Title	National/International	Seminars/Conferences/Workshop / symposia	Date(s)
2018-19				
Mr. U. B. Chavan, Ms A M Khot	TEQIP III FDP on "Machine Learning "	National	Workshop	04-08 June, 2019
Dr. S. P. Sonavane, Ms A M Khot, Mr. A.A. Urunkar	Fundamental of Robotics and Artificial Intelligence at IIT Guwahati	National	Workshop	4-8 Feb 2019
Mr. U. B. Chavan	Neural Language Processing	National	Workshop	20-21 July 2018
Mr. A. A. Urunkar, Ms. A. D. Shinde	Embedding Intelligence in IOT Edge in association with IEEE, Computer Society	National	Workshop	28th and 29th July 2018
Dr. S. P. Sonavane, Mr. U. B. Chavan, Dr. R. R. Rathod, Mrs. B. S. Shetty Miss A M Khot, Mr. M.G. Rathi	Network Technologies for Smart Application	National	Workshop	27th Sep to 1st Oct 2018
Mr. M. B. Narnaware	Machine Learning for Medical	National	Workshop	17-21 Sept 2018

	Image Analysis 2018			
Mr. U. B. Chavan	Artificial Intelligence and Deep Learning	National	Workshop	11-13 Aug 2018
Dr. S. P. Sonavane, Mr. U B Chavan, Mr. M. B. Narnaware	TEQIP-III Deep Learning Application	National	Workshop	18 June 19 to 22 June 19
Mr. M. B. Narnaware	Natural Language Processing	National	Workshop	20-21 July 2018
Dr. R. R. Rathod	Advancement in RS data analysis	National	Workshop	17-06-19 to 21-06-19
Ms. A. D. Shinde, Ms. A. M. Khot	Introduction to AI and ML for Developing IoT Applications	National	Workshop	6-7 October, 2018
Mr. U. B. Chavan	Artificial Intelligence and Machine Learning	National	Workshop	12-14 January, 2019

Other research and consultancy related activities

Name of Consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
2018-19		
Network Testing	Electrotech, Kolhapur	6844/-
Online exam	MKCL	20,900/-
Online exam	MKCL	23,000/-