



# Topic: Al for Health care

Date: 23rd November to 27th November 2020

# Organized at

Electronics & Communications Department Sarvajanik College of Engineering & Technology



Coordinator
Dr. Chirag Paunwala

Co-coordinator

Dr. Nehal Shah

# Faculty Development Program On

## Al in Health Care

5-Days AICTE sponsored workshop was conducted from 23rd to 27th November 2020 in which around 171 participants from different parts of the country have participated.

The speakers for the 5-day workshop on "ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING" were as follows:

Sr.No	Photo	Details
1.		Name: Dr. Hemant Patil
		ISCA Distinguished Lecturer 2020-2022.
		APSIPA Distinguished Lecturer 2018-2019.
		Professor, Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT), Gandhinagar-382 007, Gujarat, India.
		Email: hemant_patil@daiict.ac.in,
		Google Scholar: <a href="https://scholar.google.co.in/citations?user=9kTiuPIAAAAJ">https://scholar.google.co.in/citations?user=9kTiuPIAAAAJ</a>
2.		Name: Dr. Gaurav Sharma
		Professor of Electrical and Computer Engineering
		Professor of Computer Science
		Professor of Biostatistics and Computational Biology
		Ph.D., North Carolina State Univ., Raleigh, NC 1996

3.



Name: Dr. Amit Joshi

Malaviya National Institute of Technology, Jaipur

C-16, MNIT Campus, Staff Colony, J. L. N. Marg,

MNIT Jaipur - 302 017, INDIA

Email ID: amjoshi.ece@mnit.ac.in

Mobile: +91-9549654239

4.



Name: Dr. Aprana Akula

Senior Scientist, CSIR-CSIO, Chandigarh

PhD in Engineering from AcSIR in 2019.

5.



Name: Dr. Nehal Shah

Associate Professor, PG In-Charge & Member Secretary-CSC at Electronics & Communication Department, Sarvajanik College of Engineering & Technology,

Email: nehal.shah@scet.ac.in

Contact No.:0261-2240146-604(Ext.)

6.



Name: Dr. Ram Bilas Pachori

Discipline of Electrical Engineering (Signal Processing and Machine Learning Group) & Associate Dean of Academic Affairs (UG Programme) Indian Institute of Technology Indore, Simrol, 453552, Indore, India

E-mail: pachori@iiti.ac.in

http://www.iiti.ac.in/people/~pachori/

https://scholar.google.co.in/citations?user=j3iJOWMAAAAJ&hl

=en

7.



Name: Er. Ajay Jain

Education: B Tech in Mechanical Engineering from IIT Delhi

(1992).

Work Experience: 25 years in Oil and Gas sector

Worked With GAIL(India) from 1992 till 2003.

Worked with Shell from 2003 till 2017.

Presently involved in Human Value inculcation through Education based on Co-existential Philosophy (Madhyasth Darshan)- a research work of Sh A Nagraj, popularly known as

Jeevan Vidya.

8.



Name: Dr. Maulin Joshi

Professor & Head of The Department at Electronics & Communication Department, Sarvajanik College of Engineering & Technology,

Email: maulin.joshi@scet.ac.in

**Contact No.:**0261-2240146-604(Ext.)

9.



Name: Akbar Doctor

Principal Test Engineer-Fresenius Medical Care.

Leading Test Automation team for Product transfer from Fresenius-Germany to Fresenius-North America

Current residence: Concord, California. (San Francisco-Bay area)

Bachelors of Engineering from SCET, Surat, Gujarat.

Master in Biomedical Engineering from Furtwangen University, Germany

Currently pursuing Master in AI and machine learning at Georgia Tech, Atlanta, USA

10.



Name: Dr. Chirag Paunwala

Professor at Electronics & Communication Department, Sarvajanik College of Engineering & Technology,

Dean-R&D, SCET

Email: chirag.paunwala@scet.ac.in

**Contact No.:**0261-2240146-604(Ext.)

#### Schedule:

SCHEDU	LE		
	SESSION -1	SESSION-2	SESSION-3
DAY -1 (23/11/2020)	Infant Cry Analysis and Classification Prof. Henant Patil, Professor, DAIICT, Gandhinagar	Voice Pathology Classification Prof. Henant Patil, Professor, DAIICT, Gandhinagar	AI in Health Care: Emerging Directions and Sample Case Studies Prof. Gaurav Sharma, Univ. oj Rochester, USA
Time	9. 30 to 11.00 AM	2:00 to 3:30 PM	5.30 to 7.00 PM
DAY -2 (24/11/2020)	Smart Healthcare for Glucose Measurement and its control for diabetes Prof. Amit Joshi, Asst. Prof. MNIT, Jaipur	Thermal imaging for fever screening and the role of AI in automating the process Dr. Naga Vara Aparna Akula, CSIR, Chandigarh	Lab Session Dr. Naga Vara Aparna Akula, CSIR, Chandigarh
Time	9.00 to 10.30 AM	11.00 to 12.30 PM	2.00 to 3.30 PM
DAY -3 (25/11/2020)	IoT and Cloud Computing for Healthcare Prof. Nehal Shah, Associate Professor, SCET, Surat	EEG Signal Analysis Prof. Ramvilas Pacchori, Professor, IIT Indore	ECG Signal Analysis Prof. Ramvilas Pacchori, Professor, IIT Indore
Time	9.00 to 10.30 AM	11.00 to 12.30 PM	2.00 to 3.30 PM
DAY -4 (26/11/2020)	Stress Management during Pandemic Er. Ajay Jain, Freelancer	Machine Learning Techniques for Heart Disease Diagnosis Prof. Maulin Joshi. Professor, SCET, Surat	Lab Session Prof. Amit Joshi, Asst. Prof. MNIT, Jaipur
Time	9.00 to 10.30 AM	11.00 to 12.30 PM	2.00 to 3.30 PM
DAY -5 (27/11/2020)	Medical Devices Test Automation augmented by Knowledge Based AI Akbar Doctor, Principal Engineer Fresenius Medical Care, USA	Early and Non-Invasive COVID- 19 Diagnosis by utilizing Tonsillitis Detection Prof. Chirag Paunwala, Professor, SCET, Surat	Concluding and valedictory session
Time	9. 30 to 11.00 AM	11.30 to 1.00 PM	2.00 to 3.30 PM

List of Participants: Total 171 participant have registered, out of which 120 participants have successfully completed.

Sr.No	Name	Institute
1	Dr. Hitesh K Mehta	Sarvajanik College of Engineering & Technology
2	Mr. Vivek Harshey	SLIET Longowal
3	Mr. Jaydeep Barad	Sarvajanik College of Engineering and Technology
4	Mrs. Vasundhara Uchhula	SCET
5	Mr. Manojkumar Radadiya	SSASIT
6	Dr. Amit Phadikar	MCKV Institute of Engineering,Liluah, Howrah
7	Mrs. Kaushika Pal	Sarvanajik College of Engineering and Technology
8	Dr. Mayuri	Sarvajanik College of Engineering and Technology
9	Mrs. Dr Vijayalakshmi	BMS College of Engineering
10	Mr. Vivek Chetanbhai Joshi	R. N. G. Patel Institute of Technology - RNGPIT
11	Mr. Lekhadia Shubham Bimal	Sarvajanik College Of Engineering And Technology,Surat
12	Miss Bhavini Rajendrakumar Bhatt	R. N. G. Patel Institute of Technology
13	Dr. Vivaksha Jariwala	Sarvajanik College of Engineering and Technology
14	Dr. Y Sri Lalitha	Gokaraju Rangaraju Institute

		of Engineering and Technology
15	Mr. Imran Modi	Smt. CZMG BCA College
16	Dr. Mita Chirag Paunwala	C.K.Pithawala College of Engineering and Technology
17	Dr. Vipul Mistry	Shri Sitarambhai Naranji Patel Institute of Technology and Research Centre Umrakh
18	Dr. Madhavi B Desai	R N G Patel Institute of Technology
19	Mr. Kshitish Kumar Dash	GANDHI INSTITUTE FOR TECHNOLOGY
20	Mrs. Chandani B Patel	Government Polytechnic, Himatnagar
21	Mrs. Vaishaliben Budhabhai Patel	Government Polytechnic,Himatn agar
22	Mr. Harish I Rathod	Government Polytechnic Himatnagar
23	Mrs. Rima Anantkumar Patel	Charotar University of Science and Technology
24	Dr. Rasika Mallya	DES 's Navinchandra Mehta Institute of Technology and Development
25	Miss Binal Kaka	Charusat University
26	Dr. Nirali Nanavati	Sarvajanik College of Engineering & Technology
27	Mr. Kishan Bhayani	VVP ENGINEERING COLLEGE

28	Dr. Krupa Narwekar	SARDAR
20	Di. Niupa Nai Wekai	VALLABHBHAI
		PATEL INSTITUTE
		OF TECHNOLOGY,
		VASAD
29	Mrs. Vandana Shah	Sarvajanik College
		of Engineering and
		Technology
30	Mr. Patel Rakeshkumar	Sarvajanik College
	Kantilal	of Engineering and
		Technology Surat
31	Mr. Patel Rahulkumar	Vishwakarma
	Manilal	Government
		Engineering
		College,
		Chandkheda
32	Mrs. Ketki	Sarvajanik College
	Chintankumar Pathak	of Engineering and
		Technology
33	Miss Rachana S. Oza	SARVAJANIK
		COLLEGE OF
		ENGINEERING AND
		TECHNOLOGY
34	Mr. Himanshu	Shree Swami
	Rakholiya	Atmanand
		Saraswati Institute
25	Mr. Bintu Kadhiwala	of Technology
35	IVII. DIIILU KAUIIIWAIA	Sarvajanik Collge of Engineering and
		" "
2.5	NA sa Ni sa ta ta	Technology, Surat
36	Mrs. Neeta Hemant Chapatwala	SCET
37	Mr. Dhaval Khatri	AHMADABAD
]		INSTITUTE OF
		TECHNOLOGY
38	Dr. G.L.N.Murthy	Lakireddy Bali
		reddy college of
		engineering
39	Mrs. Pradnya Patil	K J Somaiya
		Institute of
		Engineering and
		Information
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		Technology Mumbai
40	Dr. Hetal N. Patel	A D Patel Institute of Technology
41	Mr. Sumit Das	JIS College of Engineering
42	Mr. Jayesh Ganpatbhai Chaudhary	Sarvajanik College of Engineering and Technology , Surat
43	Miss Lopamudra Khuntia	KIT
44	Dr. Varsha Bendre	Pimpri Chinchwad College of Engineering, Pune
45	Mrs. Bansari Thakkar	AIT
46	Miss Neha Prajapati	Ahmedabad Institute of Technology Engineering College ,Ahmedabad
47	Mr. Hirenkumar V Rupala	G P Gandhinagar
48	Miss Juhi Jagdish Kaneria	R C Technical Institute
49	Dr. Amisha J Shah	CKPCET, Surat, Gujarat, India
50	Mrs. Manjula P	Indira Gandhi Delhi Technical University for Women (IGDTUW)
51	Miss Ayushi Rajeshsinh Singh	Graduate School of Engineering and Technology
52	Mrs. Sandhya Sharma	The Maharaja Sayajirao Univeristy of baroda

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68	Mr. Ketan Khandubhai	GIDC Degree
	Lad	Engineering college
69	Mr. Kannan B	Ramco Institute of
		Technology
70	Mr. Ashish Suresh	SVKM's INSTITUTE
	Awate	OF TECHNOLOGY
		DHULE
71	Mr. Anshu Kumar	Noida Institute of
		Engineering and
		Technology
72	Mr. Bhushan R	SVKM'S Institute of
	Nandwalkar	Technology, Dhule
73	Dr. Anchula Sathish	Rajeev gandhi
		memorial college
		of engineering and
		technology
74	Mrs. Y Susheela	Vaageswari College
		of Engineering
75	Dr. Ramana Murthy	Acharya N G Ranga
	Bandela	Agricultural
		University
76	Mr. Vijay M Patil	A.Y.Dadabhai
		Technical Institute
77	Mrs. Samsunnisha	A.Y.DADABHAI
		TECHNICAL
		INSTITUTE
78	Mr. Vaidya Bhaumik	Gujarat
	Vidyutkumar	Technological
		University
79	Mr. Abdullah	A Y DADABHAI
	Mohammedilyas Hans	TECHNICAL
		INSTITUTE
80	Mr. Farnaz Asif Shaikh	A Y DADABHAI
		TECHNICAL
		INSTITUTE
81	Miss Agham Nasim	A.Y.DADABHAI
	Ilyas	TECHNICAL
		INSTITUTE
82	Dr. B. Ramani	SRI
		SIVASUBRAMANIY
		A NADAR COLLEGE
		OF ENGINEERING

83	Mrs. Poonkodi S	SRM Institute of
	in si i some ar s	Science and
		Technology
84	Miss Kinjal Mistree	C. G. Patel Institute
	•	of Technology
85	Mr. Uday Patkar	BVCOEL PUNE
86	Mrs. Arava Nagasri	ANNAMACHARYA
		INSTITUTE OF
		TECHNOLOGY AND
		SCIENCES
87	Mrs. R.Manimala	Manonmaniam
		Sundaranar
		University
88	Dr. Bokare Madhav	ssbes' institute of
		technology and
		management
00	NA Cirila Assault	nanded
89	Mr. Girish Agarwal	JNEC
90	Mr. Pandi Gurumurthy	MVGR COLLEGE OF
	Reddy	ENGINEERING
91	Mr. Sumit Chandak	SVVV
92	Mr. Ramesh	Rajiv Gandhi
	Bandameeda	University of
		Knowledge
93	Miss Desai Ankita K	Technologies  A Y Dadabhai
93	IVIISS Desai Alikita K	technical institute
		kosamba
94	Mrs. Shobha K	Siddaganga
		Institute of
		Technology
95	Mrs. Leena Deshmukh	JSPM Jayawant
		Institute of
		Management
		Studies
96	Miss L.Sutha Veni	Sarah tucker
		college
		(Autonomous)tirun
	5 1111	elveli,Tamilnadu
97	Dr. Hidangmayum Saxena Devi	KLEF Vaddeswaram
98		IIMT UNIVERSITY
30	Dr. K. P. Jayant	HIVIT OINIVERSITY

99	Mr. Kiran Kumar Kudumula	IIIT basar
100	Mr. Kakumani Sivakrishna	Vignans Institute of management and technology for women VMTW Kondapur ghatkesar
101	Mrs. Thalla Hemalatha	ANURAG GROUP OF INSTITUTIONS
102	Mr. Pradumn Kumar	Babu Banarasi Das Northern India Institute of Technology
103	Mr. Ashutosh Sharma	G.L. Bajaj Group of Institutions Mathura
104	Miss Rimpy Chabra	ITER SOA
105	Mrs. Praveena N	sirmvit
106	Mr. Ayyappan J	GOVERNMENT COLLEGE OF ENGINEERING, THANJAVUR
107	Mr. Mitulkumar Raejshbhai Patel	Dr. S. &S. S. Ghandhy Engineering college Surat
108	Miss R.Punitha	Muthayammal Engineering College
109	Mr. K Praveen Kumar Reddy	RMD Engineering college
110	Mrs. Anindita Khade	SIES GST
111	Mr. Syed Ali Mehdi	JAMIA HAMDARD
112	Mr. Shubham Gangrade	Rajiv Gandhi Proudyogiki Vishwavidyalaya Bhopal
113	Mrs. Kusuma S M	MSRIT
114	Mr. Viralkumar Mohanlal Prajapati	Laxmi Institute of Technology, Sarigam

115	Mr. Ch.Naga Phaneendra	Smgg
116	Mrs. Satvika	The Technological Institute of Textile & Sciences
117	Mr. Anil Kumar	The Technological Institute Of Textile and Sciences
118	Mrs. Ritu Yadav	The Technological Institute Of Textile and Sciences
119	Mr. Akhil Kaushik	The Technological Institute of Textile & Sciences
120	Mrs. Archana Singh Parmar	tits bhiwani
121	Mr. Nehal Ahmad	НКВК
122	Mrs. Shobha Gupta	College of
		Engineering and Management, Kolaghat
123	Mrs. V Sai Geetha Lakshmi	PVP SIDDHARTHA INSTITUTE OF TECHNOLOGY
124	Mr. Ranu Lal Chouhan	Engineering College Bikaner
125	Mr. Rajasekaran Thangaraj	sri venkateswara college of engg
126	Mrs. Sunanda Sinha	NITMAS
127	Mr. Pradip Ashok Chougule	Ashokrao Mane Group of Institutions, Vathar
128	Mr. Koustubh Kulkarni	Nalla Narasimha Reddy Education Society Group of Institutions (NNRESGI), Hyderabad
129	Mr. Takale Avinash A.	SHRI SIDDHIVINAYAK POLYTECHNIC, SIDDHATEK

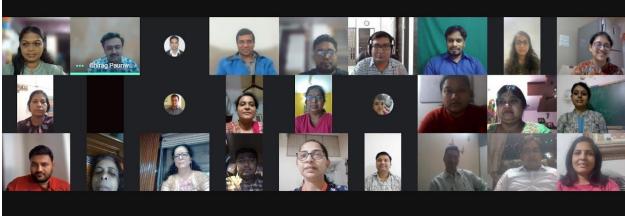
130	Mrs. D. Lakshmipriya	KSK college of
		engineering and
		technology,
		kumbakonam
131	Miss Bhavana	PVG's COET PUNE-
	Chandramani Julme	09
132	Mrs. Alisa Ransingh	osme
133	Mr. Manoj Kumar	BIT GAYA
	Sharma	
134	Mr. Gangavath Dileep	Siddhartha
		institute of
		technology
135	Miss Mamatha B	brindavan college
		of engineering
136	Miss Sanjana M	Siddaganga
	Nagaraj	Institute Of
		Technology,
		Tumkur
137	Dr. Shiv Kumar Garg	Maharishi Arvind
		College
138	Mrs. R.Premalatha	SHREE
		VENKATESHWARA
		HI-TECH
		ENGINEERING
		COLLEGE
139	Mrs. Bathlin Nelmin	University college
		of engineering
		Nagercoil
140	Mr. Shaik Rasool	PBR VISVODAYA
		INSTITUTE OF
		TECHNOLOGY AND
		SCIENCE
141	Dr. Chitra	Amity International
		Business School,
		Amity University
		Noida
142	Dr. Aswatha Kumar M	Christ (Deemed to
		be University)
143		
143	Miss Khushbu Maurya	INDUS UNIVERSITY

145	Miss Bigulla Revathi	Shadan women's engineering college, hyderabad		
146	Mrs. Leena Deshmukh	JSPM JIMS		
147	Mr. Singaraju Srinivasulu	PACE INSTITUTE OF TECHNOLOGY & SCIENCES		
148	Mr. Ramkumar Venkatasamy	Dr.Mahalingam college of Engineering and Technology		
149	Mr. Lalith Lochan Muppalla	Srm institute of science and technology		
150	Mr. Rohit Krishnan M	MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY		
151	Mrs. Jothi Prabha	Jyothishmathi Institute of Technology & Science		
152	Dr. Lilly Beaulah	Mahendra College of Engineering		
153	Mr. Srinivasarao Gorapalli	NS RAJU INSTITUTE OF TECHNOLOGY		
154	Mrs. Nilima Warade	AISSMS's Institute of Information Technology, Pune		
155	Mr. Ankit Verma	KIET GROUP OF INSTITUTIONS		
156	Mr. Mohammadnadimkha n Hidayatullakhan Pathan	Birla Vishvakarma Mahavidya Engineering College, Vallabh Vidyanagar		
157	Mrs. Deepali Mahendra Yewale	AISSMSIOIT		
158	Mr. Mallappa Navi	KLE,s C.B. Kore Polytechnic, Chikodi		

159	Mr. Anoop Kumar Prasad	Royal School of Engineering and Technology
160	Mr. Manish Kumar	Iqbri Telecom Pvt Ltd.
161	Mrs. Jyoti Sagare	KLE'S C B KORE POLYTECNIC CHIKODI
162	Dr. Pavan G P	Sreenivasa Institute of Technology and Management Studies (SITAMS), Chittoor
163	Mrs. Vrushali Ramesh Deore	pimpri chinchwad polytechnic
164	Mrs. Sirisha Akella	Andhra University
165	Mr. Madhava Rao Danda	Jyothishmathi Institute of Technological Sciences
166	Dr. Pariza Kamboj	Sarvajanik College of Engineering and Technology
167	Mrs. Suruchi Malao	K K Wagh I E E R
168	Mr. Hari Mohan Rai	Krishna Engineering College Ghaziabad
169	Dr. D. Anil Kumar	PACE INSTITUTE OF TECHNOLOGY & SCIENCES
170	Mr. Ashok Yadav	Krishna Engineering College
171	Mr. Alok Dubey	Krishna Engineering College

Few Images (screenshots) during workshop:



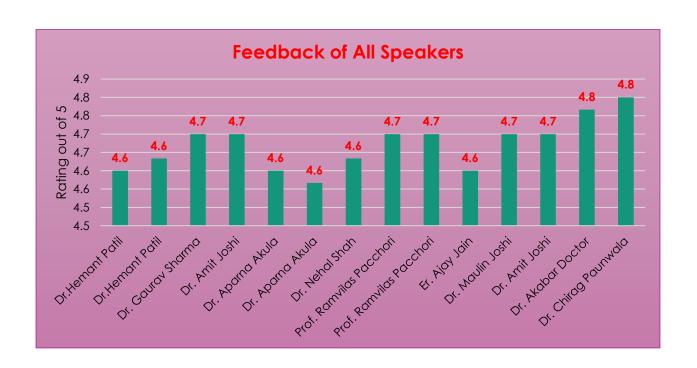




**Feedback of Speakers from participants:** 

			Feedback						
Session	Faculty	Topic	Topic explained	Presen tation	overall rating to this session	Avg	Your knowledge or skills have improve by this session? [Answer]		
							YES	NO	Some what
		Infant Cry							
		Analysis &							
D1-S1	Dr.Hemant Patil	Classification	4.6	4.6	4.6	4.6	87	2	26
		Voice Pathology							
D1-S2	Dr.Hemant Patil	Classification	4.7	4.6	4.6	4.6	84	1	28
		Al in Health							
		Care: Emerging Directions and							
		Sample Case							
D1-S3	Dr. Gaurav Sharma	Studies	4.7	4.7	4.7	4.7	94	2	21
22 00	Dir Gaarav Silarina	Smart	7.7	7.7	7.7	7.7	34		21
		Healthcare for							
		Glucose							
		Measurement							
		and its control							
D2-S1	Dr. Amit Joshi	for diabetes	4.7	4.7	4.7	4.7	94	1	24
		Thermal							
		imaging for							
		fever screening and the role of							
		Al in automating							
D2-S2	Dr. Aparna Akula	the process	4.6	4.6	4.6	4.6	83	1	26
D2-S3	Dr. Aparna Akula	Lab Session	4.6	4.5	4.6	4.6	92	5	26
	p. 5.1	IoT and Cloud	1.0	1.5	1.5	1.0	02		25
		Computing for							
D3-S1	Dr. Nehal Shah	Healthcare	4.6	4.6	4.7	4.6	106	1	14
55 51	Prof. Ramvilas	EEG Signal	4.0	7.0	7.7	7.0	100	'	17
D3-S2	Pacchori	Analysis	4.7	4.7	4.7	4.7	100	1	17
	Prof. Ramvilas	ECG Signal							
D3-S3	Pacchori	Analysis	4.7	4.7	4.7	4.7	97	1	19
		Stress							
		Management							
D4 64	En Ains Init	during							
D4-S1	Er. Ajay Jain	Pandemic	4.6	4.6	4.6	4.6	96	1	21
		Machine							
D4 66	Da Ma Parta II	Learning				. –		_	
D4-S2	Dr. Maulin Joshi	Techniques for	4.7	4.7	4.7	4.7	98	1	16

		Heart Disease Diagnosis							
D4-S3	Dr. Amit Joshi	Lab Session	4.7	4.7	4.7	4.7	90	1	16
		Medical Devices Test Automation augmented by Knowledge							
D5-S1	Dr. Akabar Doctor  Dr. Chirag	Based Al Early and Non- Invasive COVID- 19 Diagnosis by utilizing Tonsillitis	4.7	4.8	4.8	4.8	98	1	14
D5-S2	Paunwala	Detection	4.8	4.8	4.8	4.8	101	1	



#### Feedback Received on whatsapp:

