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SINHGAD TECHNICAL EDUCATION SOCIETY'S



# SINHGAD INSTITUTE OF TECHNOLOGY

(Affiliated to Savitribai Phule Pune University & Approved by AICTE)

Sinhgad Institutes

Gat No. 309/310, Kusgaon (BK.), Off Mumbai - Pune Express way, Lonavala, Dist Pune - 410 401.

**PROF. M. N. NAVALE**  
M E (Elect.) MIE, MBA  
Founder President

**DR. (MRS.) SUNANDA M. NAVALE**  
B A, MPM, Ph D  
Founder Secretary

**DR. M. S. GAIKWAD**  
M E, Ph D (Electronics Engg.)  
Principal

SIT/2017-18/4496

Date :- 14/08/2017

To,  
The Deputy Registrar,  
Planning & Development,  
Savitribai Phule Pune University,  
Ganesh Khind, Pune.

Sub :- Annual Report 2016-17 for the period 1<sup>st</sup> July, 2016 to 30<sup>th</sup> June, 2017.

Ref :- Your letter no. SPPU/P&D/34 Dated:17/07/2017

Dear Sir,

Kindly find attached herewith the Annual Report as referred above, containing all the information regarding academic activities including research publications, developments etc. in your online format.

Thanking you,

Yours Faithfully,

  
(Dr. M. S. Gaikwad)  
PRINCIPAL

Sinhgad Institute of Technology, Lonavala





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College Details			
1. Name Of the Department/College/Institute	: Sinhgad Technical Education Society Sinhgad Institute of Technology Addr: Survey No 309/310 Kusgaon Bk Lonavala Ta: Mawal Dist: Pune	2. Address Of the Department/College/Institute	: Survey No 309/310 Kusgaon Bk Lonavala Ta: Mawal Dist: Pune Pincode: 410401
3. Name Of the Head/Principal/Director	: GAIKWAD MANIK SAKHARAM	4. Tele (O/R) With STD Code/Mobile No., Fax No, Email Address and Website Address	: Tele.- 02114-304356 Email- principal_sit@sinhgad.edu URL- www.sinhgad.edu

5. Reference Books/Monographs Published by Teacher (2016-2017) :					
Sr. No.	Name of the Teacher(s)/Author	Title of the Reference Books/Monographs	Name and Place of Publisher(s)	Date of Publication	Isbn/Issn No.
1	Gaikwad Vinayak Vilas	Hydraulics and Pneumatics-Decode	Technical Publication	2016	978-93-332-1250-2 /
2	Mantri Dnyaneshwar Shriranglal	Microcontrollers	Technical	2017	978-93-332-1575-6 /
3	Babar Sachin Dilip	Role of ICT for Multi-Disciplinary Applications in 2030	River Publisher	2016	9788793379480 / 9788793379480
4	Saddu Smita Channavir	Strength of Material	Success Publication	2016	978-93-5158-271-7 /
5	Badodekar Rakesh Subhash	Human Action Recognition	Lambert Academic Publishing	2016	978-3-659-92079-0 / 978-3-659-92079-0
6	Mulye Shailesh Mukund	Heat and Mass Transfer	Technical	2016	978-93-332-1123-9 /
7	Ugare Vivek Malgonda	THERMODYNAMICS	SUCCESS	2016	978-93-85526-94-7 / -
8	R. Shenbagalakshmi	Discrete Controlled Pulse width Modulated Interleaved Boost converter using Bilinear Transformation	Atlantis Press	2017	-- / 2352-5401

6. No. of Conference, Symposia, Seminars, Workshops etc. Organized (2016-2017)			
Sr. No.	No. of State Level	No. of National Level	No. of International Level
1	24	9	0





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7. Research Publications in National and International Journals/Edited Books/Proceedings (2016-2017)

Sr. No.	Name of the Teacher's/Author	Title of the Paper	Name of the Journal/Proceeding/Edited Book	Volume & Pages	Year of Publication	ISBN/ISSN No.
1	Dhawas Vaishali Nitin	Survey on Secure Data Retrieval Techniqu for Military Networks	International Journal of Computer Applications	135 & 3	2016	973-93-80891-16-1 / 24112-2016908574
2	Shaikh Salim Gulab	Wearable health Monitoring System for babies	International Journal of Computer Engineering and Technology	7 & 4	2016	ISSN: 0976-6367 / ISSN: 0976-6367
3	Shaikh Salim Gulab	An Effective Study on Database Intrusion Using Log Mining	International Journal of Advance Engineering and Research Development	3 & 5	2016	ISSN: 2348-4470 / ISSN: 2348-4470
4	Ogale Aganivesh Purushottam	Design and development of absorption air conditioning system for passenger car	International Journal for Science and Advance Research in Technology	2 & 4	2016	2395-1052 / 2395-1052
5	Ogale Aganivesh Purushottam	Analysis of waste heat driven air conditioning system for automobile	International Journal for Science and Advance Research in Technology	2 & 4	2016	2395-1052 / 2395-1052
6	Waykar Sanjay Bajaba	servey on an effective database tampering system with veriable computation and incremental updates	IRJET	4 & 4	2017	2395-0072 / 2395-0056
7	Ghodichor Farendrakumar Shrawanji	Keyword Extraction and Clustering for Document Recommendation in Conversations	IJARCCCE	5 & 4	2016	2278-1021 / 2278-1021
8	Bhardwaj Sanika Sagar	Traffic Signal Management using Barrier	International Engineering Research Journal (IERJ)	6 & 5	2017	2395-1621 / 2395-1621
9	Bhardwaj Sanika Sagar	Smart Solar Grass cutter with Lawn Coverage	Imperial Journal of Interdisciplinary research	3 & 3	2017	2454-1362 / 2454-1362
10	Bhardwaj Sanika Sagar	Hybrid Solar System for real Time Power Management	International Journal of Engineering Science Invention Research & Development (IJESIRD)	3 & 5	2017	2349-6185 / 2349-6185
11	Baste Vaishali Sandeep	FPGA BASED DATA ACQUISITION SYSTEM	International Journal of Engineering Science Invention Research & Development;	Vol. III, & 262	2016	- / e-ISSN: 2349-6185





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12	Baste Vaishali Sandeep	Reliable Communication using FEC in Wireless Sensor Network	GLOBAL JOURNAL FOR RESEARCH ANALYSIS	Volume-05 & 629	2016	- / 2277-8160
13	Kulkarni Ninad Kamalakar	Constrained cohort intelligence using static and dynamic penalty function approach for mechanical components design	International Journal of Parallel, Emergent and Distributed Systems	2016 & 20	2016	Maharashtra / 1744-5760
14	Kulkarni Ninad Kamalakar	Optimization of Vibration of Collecting Plates of Electrostatic Precipitator Through FEA	JOURNAL OF CAD/CAM, Robotics and Factories of the Future	2016 & 6	2016	0 / 0
15	Kulkarni Ninad Kamalakar	A REVIEW OF PIPE INSPECTING ROBOT AND ITS APPLICATIONS	International Journal of Recent Innovation in Engineering and Research	02 & 5	2017	Maharashtra / 2456 – 2084
16	Gaikwad Ganesh Maroti	Securely eradicating duplication by generating file tags and tokens over hybrid cloud using security algorithm	International Journal of Advanced Research in Computer and Communication Engineering	5 & 3	2016	2319 5940 / ISSN (Online) 2278-1021
17	Salotagi Mahesh Mahadev	Lumped Heat Capacity System Design for Revampment in Tube Furnace for Continuous-Inline Wire Annealing	International Journal of Scientific Research in Knowledge	5 & 7	2017	NA / 2322-4541
18	Salotagi Mahesh Mahadev	Technological Developments in Annealing Furnaces for Performance Improvement	IJARIE	3 & 12	2017	9 772395439864 / 2395-4396
19	Shitole Neelima Bhausaheb	Execution of FPGA For Home Robotization Utilizing VHDL	IJSR	6 & 1988	2017	2319-7064 / 2319-7064
20	Bhad Sharad Arun	ENHANCEMENT OF ENERGY EFFICIENT ROUTING PROTOCOL BY MINIMIZING ENERGY CONSUMPTION IN WIRELESS SENSOR NETWORKS	International Journal of Advanced Research (IJAR)	5 & 4	2017	2320-5407 / 2320-5407





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21	Mantri Dnyaneshwar Shriranglal	Heterogeneity-aware Bandwidth Efficient Hybrid Synchronization for Wireless Sensor Network	International Journal of Computer Applications	- & 7	2016	0975 - 8887 / -
22	Pesode Pralhad Atmaram	Automobile Air-Conditioning Using Mini-Channel Technology in Evaporator-A Review	IJSART	2 & 5	2016	- / 23951052
23	R. Shenbagalakshmi	Analysis, Modelling and Simulation of state feedback control of Positive Output Superlift Luo converter	Circuits and Systems	7 & 13	2016	-- / 2153-1293
24	TONDE VANDANA PRAKASH	AVISCA-A Static Code Analyzer	International Journal for Scientific Research & Development	4 & 3	2016	2321 0613 / 2321 0613
25	TONDE VANDANA PRAKASH	IDS using Cloud and Android Devices	International Journal for Scientific Research & Development	4 & 3	2016	2321 0613 / 2321 0613
26	Chavan Sachin Vasantao	Processing of Biodiesel and Comparison of Storage Parameters	IJSART	2 & 5	2016	2395-1052 / 2395-1052
27	Chavan Sachin Vasantao	Manufacturing the Experimental Set -Up and analysing the enhancement in heat transfer rate by various passive methods	IJSART	2 & 5	2016	2395-1052 / 2395-1052
28	Gaikwad Rajendra Dattatraya	Self-Aligned Bearing Fault Detection using Vibration Signals Analyzed by Spectrum Analysis	JOURNALS FOR RESEARCH	2 & 5	2016	- / 2395-7549
29	Gaikwad Rajendra Dattatraya	IDENTIFICATION OF FAULTS IN SELF-ALIGNED DOUBLE ROW BALL BEARING	International Journal of Scientific & Engineering Research(IJSER)	8 & 6	2017	- / 2229-5518
30	Dongare Prashant Bajrang	A Review on Search Algorithm	Mantech	1 & 4	2016	3159-0040 / 3159-0044
31	Chougule Mahesh Narayan	Automatic Seed Sowing Machine	IJSART	2 & 105	2016	- / 2395- 1052





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32	Chougule Mahesh Narayan	Design and Fabrication of Solar Electric Type Agricultural Sprayer	IJSART	2 & 101	2016	- / 2395- 1052
33	Badodekar Rakesh Subhash	ORUTA: Privacy-Preserving Public Auditing for Shared Data in the Cloud	IJIRST	2 & 4	2016	2349-6010 / 2349-6010
34	Badodekar Rakesh Subhash	Automated Vehicle Surveillance System using QR Code	IJSRD	4 & 3	2016	2321-0613 / 2321-0613
35	Linge Pravin Mohan	Performance Study of Triple Concentric Pipe Heat Exchanger	International Engineering Research Journal	2016 & 5	2016	0 / 2395-1621
36	Karlekar Nandkishor Padmakarrao	Load Balancing Using Adaptive Overlapped Data Chained Declustering For Distributed File Systems	IJETT	3 & 4091	2016	2350 – 0808 / 2455-0124
37	Nalawade Nilesh Subhash	ENHANCEMENT OF ENERGY EFFICIENT ROUTING PROTOCOL BY MINIMIZING ENERGY CONSUMPTION IN WIRELESS SENSOR NETWORKS.	International Journal of Advanced Research(IJAR)	5 & 4	2016	2320-5407 / 2320-2407
38	Gharde Pankaj Ramkrushna	Review on Advance Augmentation and Future Opportunity of Magnetic Refrigeration Systems	IJSER	8 & 36	2017	5518 / 2229
39	Gharde Pankaj Ramkrushna	Fabrication and Experimental Performance Investigation of Economical Multi-objective Agriculture Equipment	IJSER	8 & 266	2017	5518 / 2229
40	Latane Pravin Chandrakant	Arm based Real Time Induction Fault Analysis	International Journal of Electrical and Electronics Engineering	8 & 9	2016	0 / 2321-2055
41	Latane Pravin Chandrakant	Fault Detection in Electric Motors Using Vibration Analysis and DSP Processor	International Journal of Innovative Research in Science, Engineering and Technology	5 & 7	2016	0 / 0







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42	Latane Pravin Chandrakant	Real Time Speaker Recognition using Mel-Frequency Cepstral Coefficients (MFCC), VQLBG and CMM Technique	International Journal of Innovative Research in Science, Engineering and Technology	5 & 8	2016	0 / 0
43	Datar Pranav Prakash	EXPERIMENTAL ASSESSMENT ON COCONUT SHELL POWDER AS AN AGGREGATE MATERIAL FOR CONSTRUCTION BRICKS	international journal for science and advance research in technology	2 & 5	2016	- / 2395-1052
44	Chavan Sadashiv Dattatraya	Design and development of centrifugal oil cleaner and finite element analysis using ANSYS	International Research Journal of Engineering and Technology (IRJET)	3 & 6	2016	2395-0056 / 2395-0072
45	Gholap Sharad Balasaheb	Spectrum Sensing Technique with FPGA Implementation Using System Generator	International Journal of Innovative Research in Science, Engineering and Technology	5 & 8	2016	2319-8753 / 2277-7881
46	Gholap Sharad Balasaheb	System Generator: FPGA Design Tool for DSP Application	International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering	5 & 10	2016	2278-8875 / 2320-3765
47	Gholap Sharad Balasaheb	Simulink Based Spectrum Sensing in Cognitive Radio Using Cyclostationary Detection	Asian Journal of Convergence in Technology	III & 6	2017	-- / 2350-1146
48	Shende Dipali Kedar	FPGA BASED DATA ACQUISITION SYSTEM	IJESIRD	3 & 268	2016	NIL / 2349-6185
49	Chavan Vikram Madhukar	ENHANCEMENT OF ENERGY EFFICIENT ROUTING PROTOCOL BY MINIMIZING ENERGY CONSUMPTION IN WIRELESS SENSOR NETWORKS	International Journal of advanced Research	5 & 4	2016	ISSN: 2320-5407 / ISSN: 2320-5407





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50	Lokhande Prasad Eknath	Conventional Chemical Precipitation Route to Anchoring Ni(OH) <sub>2</sub> Nanoparticles For Supercapacitor Application	IJME	00 & 1560	2016	2349-9168 / 2348-8360
51	Lokhande Prasad Eknath	Developing a system having zero turn mechanism	IJSART	2 & 163	2016	2395-1052 / 2395-1052
52	Lokhande Prasad Eknath	Enhancing Mechanical Properties of Polypropylene/OMMT by adding SEBS	IJSART	2 & 160	2016	2395-1052 / 2395-1052
53	Ware Swapnali Balasaheb	Fog Computing: Securing the cloud and preventing insider attacks in the cloud	International Journal Of Engineering And Computer Science	5 & 4	2016	- / 23197242
54	Ware Swapnali Balasaheb	Secure Data Hiding in Audio-Video Steganalysis by Anti-Forensic Technique	International Journal Of Engineering And Computer Science	5 & 5	2016	- / 2319-7242
55	Ugare Vivek Malgonda	Performance of 3- Cylinder 4 Stroke SI Engine under the Influence of Permanent Magnetic Field	IJSART	2 & 3	2016	2395-1052 / 2395-1052
56	Ugare Vivek Malgonda	A Comprehensive Review on Solar Cookers	IJSART	2 & 4	2016	2395-1052 / 2395-1052
57	Ugare Vivek Malgonda	EFFECT OF SURFACE PRE-TREATMENT, TEXTURED PATTERN ON Ti6AL4V ALLOY SUBJECTED TO FLUCTUATING SERVICE CONDITIONS	IJSART	2 & 10	2016	2395-1052 / 2395-1052
58	Ugare Vivek Malgonda	Verification of Multi Evaporator VCR System with Micro channel Condenser	International Journal of Scientific & Engineering Research,	Volume 8 & 5	2017	- / ISSN 2229-5518
59	Ugare Vivek Malgonda	Performance Analysis of Vapour Compression Refrigeration System with Spiral Micro-tube Condenser	International Journal of Scientific & Engineering Research,	Volume 8 & 5	2017	- / ISSN 2229-5518







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60	Patil Deepak Balaso	Semi-automated lesion grading in cervix images with specular reflex removal	ICICT 2016	170	2016	978-1-5090-1285-5 /
61	Mantri Dnyaneshwar Shriranglal	Sink Mobility-aware Node Scheduling Algorithm for Wireless Sensor Network	Advances in Electronics, Communication and Computer Technology (ICAECCT),	5	2016	16932799 /
62	R. Shenbagalakshmi	Discrete Controlled Pulse width modulated Interleaved Boost converter using Bilinear Transformation technique	2nd International Conference on Communication & Signal Processing (ICCASP – 2016)	6	2016	ISSN 2352-5401 /
63	Wable Pradip Bhaskar	A Survey: Leaf Recognition	National Conference on "Internet of Things: Towards a Smart Future" & "Recent Trends in Electronics & Communication	4	2016	2394-3696 / 2394-3696
64	Wable Pradip Bhaskar	Neural network based leaf recognition	ICACDOT	5	2016	16743952 / 16743952
65	Dike Prashant Rajaram	ENERGY EFFICIENT MULTIRATE SIGNAL PROCESSING FOR WSN FOR CHANNEL CAPACITY AND DELAY IMPROVEMENT	IEEE book of abstract international conference on ICICT 2016	170	2017	978-1-5090-1283-1 5 PP [170-171], /
66	Latane Pravin Chandrakant	Arm based Real Time Induction Fault Analysis	International Conference on Recent Trends in engineering and Science	9	2016	978-93-86171-06-1 / -
67	Latane Pravin Chandrakant	Implementation of Low Power Nine axis sensor for AHRS using Direction Cosine Matrix Algorithm	International Conference on Digital Signal and Image Processing	5	2017	- / -
68	Gholap Sharad B	Design of Spectrum Sensing Test Bed Using SIMULINK for Cognitive Radio Application	3rd International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences (EEECOS)-2016	8	2016	0-8-247-0473-8(2001) / 978-15090-0849-01/16
69	Gholap Sharad Balasaheb	Cognitive Radio Test Bed for Spectrum Sensing Application in Wireless Communication Using Simulink	National Conference on Electronics, Communication, and Computing (NCECC-2017)	7	2017	-- / --





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70 Ugare Vivek Malgonda Performance of 3 CYLINDER 4th National Conference on Innovations in 6 2016  
 4 STROKE internal Mechanical Engineering  
 combustion (SI) engine under  
 the influence of strong  
 permanent magnetic field

-/-

8. Research Projects/Schemes Undertaken by Teachers (2016-2017)

Sr. No.	Name of the Investigator(s)	Faculty	Title of the Research Project/Scheme	Name of the Funding Agency	Duration of the Project/Scheme	Amount Sanctioned (Rs.)	Major/Minor
1	Sharad Balasaheb Gholap	Engineering	Estimate the delay and its analysis in Spectrum Se	BCUD	26/10/2010-13/03/2013	200000	Major
2	Gaurav Bhosekar	Engineering	Synthesis, Characterization, Polymorphic Behavior	SPPU	08/09/2016-07/09/2018	190000	Minor

9. Teachers Attended Conferences, Seminars, Symposia, Workshops etc. (2016-2017)

Sr. No.	No. of Teachers Attended State Level	No. of Teachers Attended National Level	No. of Teachers Attended International Level
1	13	19	1

10. No. of Collaboration with International Institute/Colleges/University Department during the Year (2016-2017)

Sr. No.	MoU	Exchange Program	Exchange of Teachers	Franchise
1	4	2	0	0

11. Grants Sanction for Funding Agency (2016-2017)

Sr. No.	UGC	DST/DBT/B.Voc.	CE/CPE	S.P. Pune University	Any Other
1	NA	NA	NA	NA	NA





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12. Faculty Wise Enrollment Of Students (2016-2017)

Faculty	Sex	Open	Sc	ST	DT(A)	NT	NT(B)	NT(C)	NT(D)	OBC	SBC	Physically Challenged	Total
Engineering	FEMALE	65	12	2	1	0	2	2	1	21	1	0	107
	MALE	335	58	5	7	0	15	27	25	188	5	0	665
	TOTAL	400	70	7	8	0	17	29	26	209	6	0	772

13. Statistical Information about Teacher for Academic Year ( 2016-2017 )

Sr.No.	Category	Granted			Non Granted		
		Male	Female	Total	Male	Female	Total
1	NT(B)	1	0	1	0	0	0
2	OBC	7	2	9	4	2	6
3	OPEN	9	10	19	16	4	20
4	SBC	1	0	1	0	0	0
5	SC	2	5	7	5	2	7
6	ST	0	0	0	1	0	1
Date :	Total	20	17	37	26	8	34

Place :

Signature  
 HOD/Principal/Director

**SINHGAD INSTITUTE OF TECHNOLOGY**  
 Kusgaon(Bk.), Lonavala - 410401.

