

# **G.H. Raison College of Engineering**

(An Autonomous Institute affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)

## **Ph.D. Abstract Book**

### **2015-16**

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**8. Ph.D. Activities & Glimpses**

## **1. About GHRCE Approved Research Centre (ARC)**

The Ph.D. Cell of G. H. Raisoni College of Engineering is an 'Approved Research Centre' for Doctoral & M.E. (By Research) Programmes. It has been accorded recognition as '**Place for Higher Learning and Research**' leading to Ph.D. in the Department of Electronics Engineering, Mechanical Engineering, Computer Science & Engineering, Electrical Engineering, Civil Engineering, Electronics & Telecommunication, Information Technology in the Faculty of Engineering and Technology and Physics, Chemistry and Mathematics in Basic Sciences under Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The Research Promotion Scheme of G.H. Raisoni College of Engineering, Nagpur aims to nurture research culture in the Institute by promoting research in new, emerging and challenging areas of science and engineering. It encourages the post graduate and doctoral degree candidates to undertake the research in emerging and frontier areas of science and engineering, including multidisciplinary fields.

### **R&D Activities:**

- Registration of candidates for Ph.D. and M.E.(By Research).
- R&D fund allocation & creation of R&D facilities.
- R&D promotion activities of staff and research scholars disseminating information about conferences, seminars, workshops, funding schemes etc.
- To promote and keep track of research publications in conferences and journals.
- Encouraging research proposals for external funding agencies.
- Assistance for filing patents.
- Designing norms for promoting research & incentives for motivation.
- Attractive incentives.

### **R&D Resources:**

- Laboratories with research oriented facilities
- Library with books, multimedia & Journals (Printed and Online) from reputed publishers
- Modeling & Simulation softwares in all departments
- Testing facilities available in departments
- Externally funded research projects in the form of RPS/MODROBS from AICTE and other agencies like DST, CSIR, IET, etc.

### **Initiatives for Ph. D Scholars:**

- Pre-registration seminar in presence of central committee.
- Six monthly progress seminars in presence of external experts.
- Pre-submission seminar in presence of experts from IITs /IISc / R&D organizations.
- Encouragement to submit research proposals to external funding agencies.
- Financial assistance for experimental work, purchase of books / equipment and publishing research papers in journals and conferences.
- Patent awareness program & financial assistance.
- Coursework on 'Research Methodology & Quantitative Methods'.
- Skill enhancement programs.

### Initiatives for Faculties Pursuing Ph.D. / Research:

- 100 % financial assistance in terms of registration fees, TA/DA etc. for participation in national & international conferences organized in India and abroad, workshops, seminars etc.
- Full time deputation for pursuing Ph.D. with 75% salary.
- Semester leave for the Ph.D. thesis writing work /experimental work.
- Felicitation after Ph.D. award.
- Ph.D. supervisor's felicitation.
- Print fee for journal.
- 5% incentive to faculty who are awarded research grants.
- Financial assistance for chairing technical session/invitation as keynote speaker in international conferences.
- Faculty members are deputed to IITs/NITs for knowledge upgradation.
- Financial assistance cum incentive of Rs. 30,000/- for securing patents (Rs. 15,000/- towards filing a patent application & Rs. 15,000/- after the grant of patent).
- Encouragement for research proposal submission under mentor.

### 2. Statistics: Ph.D. & M.E. (By Research) Candidates Registered at ARC

SN	Department	Ph.D. Candidates				M.E. (By Research) Candidates			Total Ph.D. Candidates Registered at ARC
		Awarded Ph.D.	Ph.D. Submitted at ARC	Pre-submission	Pursuing Ph.D.	Awarded M.E. (By Research)	M.E. by Research Submitted at ARC	Pursuing M.E. (By Research)	
1.	Electronics Engg.	5	7	1	48	1	-	1	61
2.	Mechanical Engg.	2	4	1	21	-	-	-	28
3.	Computer Science & Engg.	2	12	4	32	-	-	4	50
4.	Electrical Engg.	1	5	1	16	1	-	2	23
5.	Civil Engg.	-	-	-	10	-	-	-	10
6.	Electronics and Telecommunications Engg.	-	-	-	5	-	-	-	5
7.	Information Technology	-	-	-	10	-	-	-	10
	Total	10	28	7	142	2		7	<b>187</b>

### **3. Ph.D. Awarded/Submitted**

<b>Sr. No</b>	<b>Name of Candidate</b>	<b>Name of Supervisor/ Co Supervisor</b>	<b>Title of Research</b>	<b>Department at ARC</b>	<b>Registration No. &amp; Date</b>	<b>Date of Award</b>	<b>Date of Pre submission seminar</b>
1	Mr. D. V. Padole	Dr. P.R. Bajaj & Dr. S.S. Limaye	Optimum Prototype Design of Embedded Controller for Some Applications in Intelligent Transportation Systems	Dept. of Electronics Engineering	PhD(Cell)Research/E&T/995/B/225 Dated:- 29/01/2007	6/7/2011	Awarded
2	Mr. M.M. Khanapurkar	Dr. P.R. Bajaj & Dr.S.S. Limaye	Vehicular Communication: A Design for Some Intra-vehicular Communication applications with VLSI Tools	Dept. of Electronics Engineering	PhD(Cell)Research/E&T/1000/B/230 Dated :-29/01/2007	6/7/2011	Awarded
3	Mr. Manoj B. Chandak	Dr. R. V. Dharaskar	Machine Translation Strategies and Speech Synthesis Initiatives for Indian Language	Dept. of Computer Science & Engineering	PhD(Cell)Research/E&T/257/B/1204 Dated:- 24/07/2009	13/03/2013	Awarded
4	Mr. Prashant Sharma	Dr. P. R. Bajaj	A Design Approach to Hybrid Intelligent System with Type 2 Fuzzy Logic for Some Applications of Intelligent Transportation System.	Dept. of Electronics Engineering	PhD(Cell)Research/E&T/232/B/1178 Dated:- 23/07/2009	13/09/2013	Awarded
5	Ms. Shubhangi. D Giripunje	Dr. P. R. Bajaj	A Design and Implementation of Simulation Facial Action Tracking and Emotion Recognition Based on Non Intrusive Parameters	Dept. of Electronics Engineering	PhD(Cell)Research/E&T/1128/B/1527 Dated:- 05/09/2009	30/03/2014	Awarded
6	Mr. Nitin Mandavgade	Dr. S. B. Jaju, Dr. R.R. Lakhe	Impact of various factors on Measurement of Uncertainty.	Dept. of Mechanical Engineering	PhD(Cell)RRC/252 Dated:- 13/07/2010	11/2/2015	Awarded
7	Mrs. Shakti S. Awaghad	Dr. S.B. Pokle	Designing Approach for Transcoding Multimedia Over Wireless Channels and It's Applicability for Mobile Devices	Dept. of Electronics Engineering	PhD(Cell)RRC/460/B/4079 Dated:- 04/10/2010	20/08/2015	Awarded
8	Ms. Rahila Patel	Dr. M. M. Raghuwanshi	Performance Improvement of Genetic Algorithm Used for Multiobjective Optimization	Dept. of Computer Science & Engineering	PhD(Cell)RRC/Com.Sci & Tech978/B/1693 Dated:- 18/11/2010	31/07/2015	Awarded

9	Mrs. M.V. Palandurkar	Dr. J.P. Modak Dr. S.G.Tarnekar	Replacement of flywheel of the process m/c with appropriate electric Drives	Dept. of Electrical Engg.	PhD(Cell)research/E&DT/322/B/1277 Dated:- 27/07/2009	20/08/2015	Awarded
10	Mr.S.F.Lihare	Dr.N.G.Bawne	A study on design of neural controller for paddy dryer system	Dept. of Electrical Engg.	Ph.D.(Cell)/Research/E&T / 448 Dated: 15/7/2009	Submitted	28/08/2014
11	Mr.K.G.Bante	Dr.S.G.Tarnekar,Dr.Tutkane	Industrial Power Electronics and PLC system solution for enhancing the performance of DC/AC drive for specific application	Dept. of Electrical Engg.	PhD(Cell)/RRC/274 Dated: 10/1/2011	Submitted	21/09/2014
12	Mr.A.K.Mahalle	Dr.G.K.Awari	Optimization of wheel dimensions and speed ratio between crank and wheel for cycle rickshaw	Dept. of Mechanical Engineering	PhD(Cell)/RRC/204B/232 Dated: 9/12/2010	20/08/2015	Awarded
13	Mr.P.K.Katara	Dr. V.M.Kriplani	Concept development, experimental investigation of conical compressor and performance analysis of vapour compression refrigeration system using different refrigerants	Dept. of Mechanical Engineering	PhD(Cell)/RRC/195 B/223 Dated: 8/1/2010	Submitted	6/2/2015
14	Ms. S.S.Godbolde	Dr. S.B.Pokle	Approaches for implementation adaptive noise canceller in digital filter for audio related applications	Dept. of Electronics Engineering	Ph.D. (Cell)/RRC/1261 dated 07/12/2012	Submitted	22/11/2014
15	Ms. Prerana Shrivastav	Dr.S.B.Pokle	Various strategies for the design of an energy efficient hybrid sink repositioning technique for data gathering in wireless sensor networks	Dept. of Electronics Engineering	Ph.D. (Cell)/RRC/338 dated 24/05/2012	Submitted	22/11/2014
16	Mr.Syed Rizwan Ahmed	Dr.R.V.Dharaskar	Analysis and design of efficient generalized forensics framework for mobile devices	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/Com. Sci & Tech./977B/1692 dated 18/10/2010	Submitted	28/02/2015
17	Ms.Pallavi Choudhari	Dr.R.V.Dharaskar	Finding the most significant solution from the large result set of multi objective evolutionary algorithms by applying clustering techniques	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/Com. Sci & Tech./979B/1694 dated 18/10/2010	Submitted	28/02/2015

18	Mr.Vijay Bhatkar	Dr.V.M.Kriplani	Design, development and performance evaluation of vapour compression refrigeration system with and without microchannel condenser using alternative refrigerants	Dept. of Mechanical Engineering	Ph.D. (Cell)/RRC/188 Nagpur, dated , 23.05.2012	Submitted	16/06/2015
19	Ms.Megha Chakole	Dr.S.B.Pokle	Strategies for performance evaluation of wavelet packet modulation in wireless adhoc networks	Dept. of Electronics Engineering	Ph.D. (Cell)/RRC/1250 dated 7/12/2012	Submitted	3/7/2015
20	Mr. Rajesh Agrawal	Dr.N.G.Bawane	Advance techniques for classification of remotely sensed images	Dept. of Electronics Engineering	Ph.D. (Cell)/RRC/589 dated 27/7/2012	Submitted	13/07/2015
21	Mrs.Soni Chaturvedi	Dr.S.S.Khurshid	Reconfiguration of spiking neural network for optimization with application to image processing (Thesis submitted )	Dept. of Electronics Engineering	Ph.D. (Cell)/RRC/Electronics Engg/1039B/1750 dated 20/11/2010	Submitted	13/07/2015
22	Mr.P.S.Kaduru	Dr.G.K.Awarri	Design and development of hydraulically driven water monitor trailer	Dept. of Mechanical Engineering	Ph.D. (Cell)/RRC/6133 dated 30/06/2010	Submitted	25/08/2015
23	Mr.Prashant Dahiwale	Dr.M.V.Raghuwanshi	Analysis and design of data mining techniques for digital forensics	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/1250 dated 7/12/2012	Submitted	26/09/2015
24	Ms.Smita Nirkhil	Dr.R.V.Dharaskar	Design and development of web crawling algorithm using various computational intelligent techniques: An approach to web mining	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/170 dated 22/5/2012	Submitted	26/09/2015
25	Mr.Pratik Hazare	Dr.N.G.Bawane	Performance optimization of artificial neural networks using swarm intelligence	Dept. of Electronics Engineering	Ph.D. (Cell)/RRC/E&T/287/B/306 dated 20/12/2010	Submitted	19/10/2015
26	Ms.Swapnali Karmore	Dr.A. R. Mahajan	Development of AI based approach for testing of various embedded system	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/402dated 03/11/2012	Submitted	31/10/2015
27	Mr. Sayyad Naimuddin	Dr.Tutakane	Enhancing the power quality and performance of electrical drives for various industrial applications	Electrical Engineering	No. Ph.D. (Cell)/RRC/287 Dated 11/01/2011	Submitted	2/12/2015
28	Ms.Pradnya kamble	Dr.M.M.Kshirsagar	Exploring smart, efficient and robust routing algorithm for VANET	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/1360, dated 07/06/2012	Submitted	14/12/2015



29	Mr.Shailendra Aote	Dr.M.V. Raghuvanshi	Development of an algorithm to enhance the performance of particle swarm optimization ( Submitted )	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/890 Dated 15/01/2011	Submitted	14/12/2015
30	Ms.Madhuri Tayal	Dr.M.V. Raghuvanshi	Development of an approach based on soft computing for text summarization	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/180 dated 22/05/2012	Submitted	14/12/2015
31	Mr. Shaikh Phiroz Chhaware	Dr. Mohd. Atique	Personalized web content mining using soft computing approach	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/176, Dated 03/11/2012	Pre-submission over	14/12/2015
32	Ms.Pallavi Chavan	Dr. Mohd. Atique	An intelligent system with secured authentication using hierarchical visual cryptography	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/2088 dated 11/04/2012	Submitted	14/12/2015
33	Ms.Geeta Tripathi	Dr.A.R.Mahajan	Dynamic administrator gateway in MGA for performance improvement in wireless mesh networks	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/173,dated 22/05/2012	Submitted	22/12/2015
34	Ms. Vijaya Balpande	Dr.A.R.Mahajan	Development of an efficient parallelization algorithm for multicore architecture	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/1226dated 22/05/2012	Submitted	22/12/2015
35	Mr.Shrikant Sonekar	Dr.M.M.Kshirsagar	Development of an intelligent approach for intrusion detection in Adhoc wireless network	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/178 dated 22/05/2012	Submitted	22/12/2015
36	Ms.Dipti Ajmire	Dr.Mohd. Atique	Dynamic load balancing on small and medium sized enterprise cloud	Dept. of Comp. Sci. & Engineering	Ph.D. (Cell)/RRC/2087dated 11/04/2012	Pre-submission over	22/12/2015
37	Mr. Rakesh Shrivastava	Dr.Manoj Daigvane	Some studies in performance enhancement of permanent magnet synchronous motor drive in automotive application	Electrical Engineering	Ph.D.(Cell)/Research/E&T / 307 B /645 dated 3/3/2011	Submitted	4/1/2016
38	Ms.Shilpa Shrawane	Dr.Manoj Daigvane	Hybrid intelligence approach for optimal reactive power dispatch	Electrical Engineering	PhD(Cell)/RRC/275 dated 23/5/2012	Pre-submission over	4/1/2016
39	Mr.Pankaj Thote	Dr.Manoj Daigvane	Use of hybrid intelligence for smart protection of transformer	Electrical Engineering	Ph.D.(Cell)/RRC/1643 dated 10/01/2011	Submitted	4/1/2016
40	Mr. Pranav Gopal Charka	Dr. S. B. Jaju	Supply Chain Management Practices in Indian Textile Industry Performance Measurement Perspective	Mechanical Engg.	Ph.D.(Cell)/RRC/62013 dated 27/07/2012	Submitted	20/02/2016

41	Sonali Ket	Dr. R. D. Kharadkar	Study and Performance Analysis of Adaptive Filter for Speech	Electronics Engg.	Ph.D.(Cell)/Research/E & T/291 dated 30/04/2010	Submitted	13/02/2016
42	R.W.Jasutkar	Dr.P.R.Bajaj	Design and Development of Sigma Delta Modulator with power optimization for Biomedical Applications	Electronics Engg.	Ph.D.(Cell)/RC/355 dated 24/05/2012	Pre-submission over	13/02/2016
43	Gouri Dhopavkar	Dr.M.M.Kshirsagar	Word sense disambiguation strategies related to machine translation for natural languages	Dept. of Comp. Sci. & Engineering	Ph.D.(Cell)/RC/1579 dated 02/02/2013	Pre-submission over	27/04/2016
44	Amit Khaparde	Dr.M.V. Raghuvanshi	Development of algorithm to enhance the performance of differential evolution algorithm to find global optimum	Dept. of Comp. Sci. & Engineering	Ph.D.(Cell)/RC/163 dated 22/05/2012	Pre-submission over	27/04/2016
45	G.N.Akhade	Dr. S. B. Jaju, Dr. R. R. Lakhe.	Model for assessing service Quality using Neural Network.	Mechanical Engg.	Ph.D.(Cell)/RC/256 dated 23/05/2012	Pre-submission over	26/06/2016