

Evaluative Report of the Department- A

1. Name of the Department School of Electronics
2. Year of establishment : 1990
3. Is the Department part of a School/Faculty of the university? Yes
4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.) :
 1. Ph.D
 2. M.Tech(Embedded Systems)
 3. M.Tech(Spatial Information Technology)
 4. M.Tech(Mobile Computing Technology)
 5. MSc(Electronics)
 6. MSc(Electronics & Communication)
5. Interdisciplinary programmes and departments involved : Some
Subjects are taught with School of Computer Science
6. Courses in collaboration with other universities, industries, foreign institutions, etc. None
7. Details of programmes discontinued, if any, with reasons : None
8. Examination System: Annual/Semester/Trimester/Choice Based Credit System : Semester wise
9. Participation of the department in the courses offered by other departments
10. Number of teaching posts sanctioned, filled and actual
(Professors/Associate

Positions	Teaching faculty			Non-teaching staff	Technical staff
	Professor	Associate Professor	Assistant Professor		
Sanctioned by the UGC / University / State Government	2	3	4	2	4
<i>Recruited</i>	1+1(CAS)	0	3	2	4
<i>Yet to recruit</i>	1	2	1	-	-

Positions	Teaching faculty			Non-teaching	Technical staff
Number of faculty & non-teaching staff working on contract basis	-	-	4	7	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Dr. Raj Kamal	Ph.D.	Professor (Associated jointly with SCSIT)	Embedded Systems, Mobile Computing, High Performance Computing	41	6
Dr. S.Katiyal	Ph.D.	Professor	VLSI, Control Systems	25	
Dr. A. Kumar	Ph.D.	Head & Professor	DSP, Analog & Digital Communication	21	1
Ms. P. Umale	M.E.	Assistant Professor (Stage 2)	Digital Communication	7	
Dr. Manju K. Chattopadhyay	Ph.D.	Assistant Professor (Stage 2)	Semiconductor Device Modeling, CMOS & VLSI Design, ARM uC	9	
Ms. Kirti Panwar	M.Tech	Assistant Professor (Stage 2)	Mobile Computing	6	
Dr. Alka Dubey	Ph.D.	Lecturer (Contractual)	uC 8051	3	
Mr. Manoj Lokre	M.Tech	Lecturer (Contractual)	Spatial Analysis	-	

		al)			
Mr. Rameez Raja Chowdhary	M.Tech	Lecturer (Contractual)	Embedded Systems	3	
Ms Krupali Jhala	M.Sc.	Lecturer (Contractual)	Analog Electronics	3	

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors
The school plans to recruit the following as adjunct faculty during 2013-14
1. Prof. P Dandekar, Visiting Professor, IIT Gandhinagar
 2. Dr. S Vishwakarma, Assistant Prof, IIT Indore
13. Percentage of classes taken by temporary faculty – programme-wise information
For M.Tech. courses: 20% for session 2013-14. For M Sc courses: 10 % for session 2013-14
14. Programme-wise Student Teacher Ratio : 20:1
15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

Positions	Non-teaching staff	Technical staff
Sanctioned by the UGC / University / State Government	2	4
<i>Recruited</i>	2	4
<i>Yet to recruit</i>	-	-
Number of persons working on contract basis	7	-

16. Research thrust areas as recognized by major funding agencies :
Embedded Systems, Mobile Computing Technology, Digital Signal Processing
17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

UGC Sponsored Innovative Programme: Mobile Computing

Technology Programme. Grant Recieved : 50 lacs

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration b) International collaboration

None in past 4 years

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

UGC Sponsored Innovative Programme: Mobile Computing Technology Programme. Grant Recieved : 50 lacs (In last 4 years)

20. Research facility / centre with

- state recognition
- national recognition
- international recognition

None

21. Special research laboratories sponsored by / created by industry or corporate bodies

None in last 4 years

22. Publications:

- Number of papers published in peer reviewed journals (national / international)

Year-wises Publications in the department:

2012-13

1. A.Kulkarni and A.Kumar, “Adaptive Backstepping control for uncertain underactuated systems with input constraints”, Proceedings of Science Direct International Conference on Modeling Optimization and Computing, pp. 1001-1010, 2012.
2. A.Kulkarni and A.Kumar, “Dynamic Recurrent Wavelet Neural Network Observer Based Tracking Control for a Class of Uncertain Nonaffine Systems”, International Journal of Intelligent Systems and Applications, Vol.11, pp. 53-61, 2012.
3. Suvarna Joshi and Abhay Kumar, Correlation filter based Fingerprint Verification System, International conference on VLSI ,communication and instrumentation,19–22, Kottayam, Kerala, India, April 2011.
4. Suvarna Joshi and Abhay Kumar, Wavelet Based Rotation Invariant Fingerprint Recognition, CiiT International Journal of Digital Image Processing, March 2012.
5. Suvarna Joshi and Abhay Kumar, Feature extraction using DWT with

- application , to offline signature identification,,ICSIP 2012, Lecture Notes in Electrical Engineering, Vol. 222, 2013, pp 285-294.
6. Suvarna Joshi and Abhay Kumar, Bimodal Biometrics Authentication system using iris and offline signature, International Conference on Human Computer Interaction, accepted.
 7. Manju K. Chattopadhyay, Raj Kamal, Emerging Technologies in Random Access Memories, International Journal of Advances in Engineering Science and Technology, 2(1), pp.84-88, 2013

2011-12

Books Published

8. Digital Systems Principles and Design, Raj Kamal – A Text Book, http://www.pearsoned.co.in/Raj_Kamal www.pearsoned.co.in/Raj_Kamal Pearson Education, Anna Univ. Edition, 2012
9. Switching Theory and Logic Design, Raj Kamal - A Text Book, http://www.pearsoned.co.in/Raj_Kamal www.pearsoned.co.in/Raj_Kamal Pearson Education, JNTUniv, Kakinada Edition, 2012,
10. Mobile Computing, Raj Kamal, Oxford University Press, 1st Edition, Oct. 2007; 2nd Edition, 2012
11. Microcontrollers. – Architecture, Programming, Interfacing and System Design,, Raj Kamal- A Text Book, http://www.pearsoned.co.in/Raj_Kamal www.pearsoned.co.in/Raj_Kamal Pearson Education, Singapore, First Edition and First Print, 2005, Translation in Mandarin (Chinese) by Pearson, Taiwan 2009, 2nd Edition, 2012
12. Design of Data Acquisition System, Pratibha Umale, LAP LAMBERT Academic Publishing, Germany
13. Self Learning and Evaluation System using Windows Mobile, Kirti Panwar, Lambert Academic Publishing (2011-08-18) (ISBN-13 : 978-3-8454-3605-0)

International Journal

14. Security Orchestration at Process Level, International Journal of Computer Science, Information Technology, & Security (IJCSITS) Vol2, No.3 June 2012,
15. Service Integration towards Security Orchestration, Aradhana Goutam, Raj Kamal, and Maya Ingle, Journal of Procedia, Technology, (ISSN: 2212-0173) Elsevier, 2012 (Accepted) [International Conference on Information and Technology (ICIET'12, Mumbai, 20th Jan 2012)]
16. A Kulkarni and A Kumar, “Dynamic Recurrent Wavelet Neural Network Observer Based Tracking Control for a Class of Uncertain Nonaffine Systems” International Journal of Intelligent Systems and Applications (IJISA), Accepted, 2012.
17. S Joshi and A Kumar, “Wavelet Based Rotation Invariant Fingerprint Recognition”, CIIT International Journal of Digital Image

- Processing (Accepted), 2012
18. An efficient Deadlock-free NARCO based fault tolerant routing algorithm in NoC Architecture”, The International Journal of Emerging Technology and Advanced Engineering(IJETAE) (online), approved by National Science Library (NSL), National Institute of Science Communication And Information Resources (NISCAIR), Council of Scientific and Industrial Research, New Delhi, India, Vol. 2 , Issue 2, Feb. 2012, ISSN 2250–2459.
 19. Performance comparison of XY,OE and DyAd routing algorithm by Load Variation analysis of 2-Dimensional Mesh topology based Network-on-chip”, BIJIT; “BVICAM's International Journal of Information technology” having ISSN 0973-5658.
 20. Reliability issue in QCA based Serial Subtractor , Nano Sci Tech 2012, Panjab University, Chandigarh, Feb 15-18,2012.
 21. Study of Autorun Worm: An analytical approach towards Orchestrator model for system security, Maya Ingle, Raj Kamal , Aradhana Goutam," CIT Journal Research, Vol-1, issue-4,Dec-Feb 2011,page no 83-88
 22. An intelligent multimedia interface for fuzzy logic based inference in crops, Savita Kolhe, Raj Kamal, Harvinder S. Saini and G. K. Gupta, Expert System with Applications 38:12 (2011) pp. 14592-14601. (5-Year Impact Factor = 3.162)
 23. Rule Promotion: A new fuzzy logic approach for drawing inferences in Rule Based expert System, Savita Kolhe, Raj Kamal, H.S. Saini ,and G.K.Gupta, www.isas.org.in/isas Journal of Indian Society of Agricultural Statistics, 65(3) (2011) 359-365 [NAAS Impact Rating 5.1]
 24. Quantitative Analysis of Spin hall effect in Nanostructures”, accepted for publication in BIJIT, “BVICAM's International Journal of Information Technology” ” having ISSN 0973-5658.
 25. Performance Analysis of variation in Power Consumption and Frequency on different topologies of Ring VCO in 70 nm CMOS technology”, accepted for publication in BIJIT, “BVICAM's International Journal of Information Technology” having ISSN 0973-5658.
 26. “Low Power with improved noise margin for DOMINO CMOS Nand Gate”, accepted for publication in International Journal for Computational Engineering Research.
 27. Exploring Alternative Topologies for Network-on-Chip Architectures, BIJIT BVICAM's International Journal of Information Technology”, ISSN 0973-5658, July-Dec'2011, Vol. 3 No.3.
 28. "LSCMA Blind Adaptive Algorithm with Comparison of Optimization Capabilities for Smart Antenna Systems”, IACSIT International Journal of Engineering and Technology (IJET), ISSN: 1793-8244 (Online Version); 1793-8236 (Print Version), International Association of Computer Science & Information Technology Press, Singapore.
 29. “Quantitative analysis of Spin hall effect in nanostructures”, 26th International Conference on Low Temperature Physics (LT26), Beijing, China, August 10-17, 2011.

30. "Ultra Compact Low Power Low Voltage Current Starved VCO in 32nm CMOS Technology", 2011 International Conference on Modeling, Simulation and Visualization Methods (MSV'11), , USA, July 18-21, 2011.
31. "Investigation of Power Management and Effective Routing Algorithms for NoC Design", 2011 International Conference on Wireless Networks (ICWN'11), USA July 18-21, 2011.
32. "Comparative Analysis of Two Topologies of Ad Hoc on Demand Distance Vector Protocol Under Black Hole Attack", 2011 International Conference on Wireless Networks (ICWN'11), USA, July 18-21, 2011.
33. "CMA Blind Adaptive Beam-forming Algorithm with Comparison of Optimization Capabilities for Smart Antenna Systems", 2011 International Conference on Wireless Networks (ICWN'11), USA, July 18-21, 2011.
34. S Joshi and A Kumar, "Correlation Filter based Fingerprint Verification System", International conference on VLSI ,communication and instrumentation, 19–22, Kottayam, Kerala, India , April 2011
35. S Joshi and A Kumar, "Wavelet Based Rotation Invariant Fingerprint Recognition", International journal of computer applications, 2011.

National Journal

36. "Multi level logic and its applications to Interface with Digital system", The Indian Journal of Technical Education (IJTE) ISSN 0971-3034 pp. 327-331.
37. "Low Power High Speed with Improved Noise Margin For Domino CMOS Inverter", Indian Journal of Applied Research, April,2012, vol. 1, issue 7, ISSN 2249-555X.
38. "Time Independent & Reconfigurable Null Conventional Logic", National conference on Innovations in Communication System and Systems Design (ICSSD-2012), 2-3 March, 2012, GGITS, Jabalpur.
39. "Understanding System on Chip Design Languages as SoC Design Alternative", 6th National Conference; INDIACom-2012 Computing for Nation Development, Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi, Feb. 23 – 24, 2012.
40. "Quantitative Analysis of Spin hall Effect in nanostructures", 6th National Conference; INDIACom-2012 Computing for Nation Development, Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi, Feb. 23 – 24, 2012.
41. "Comparison of Different AOA Estimation Techniques For SAS", 6th National Conference; INDIACom-2012 Computing for Nation Development, Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi, Feb. 23 – 24, 2012.

2010-11

Books Published

42. Computer Architecture, [Nicholas Carter (original author) and Raj Kamal (Adaptation/ Revision author)] Published as Schaum Series McGraw-Hill, International Indian Edition, 1st Edition May 2006, 2nd Edition 2010.
43. Device Modeling Of AlGaN/GaN High Electron Mobility Transistors (HEMTs): - An Analytical Approach, Manju K. Chattopadhyay, LAP LAMBERT Academic Publishing (October 29, 2010) ISBN-13: 978-3838396293
44. Image Compression and Processing, Aradhna Gautam Dissertation Published as book by Lambert Pubs. Germany, 2010.

Journal Papers

Dr. Raj Kamal

45. Knowledge Engineering for an Expert System on Crop Disease Management. Savita Kolhe, Raj Kamal, Harvinder S. Saini and G. K. Gupta, Journal of Computer Science, (Accepted), 2010
46. A fuzzy-logic based on-line disease diagnosis system for soybean, Savita Kolhe, Raj Kamal, Harvinder S. Saini and G. K. Gupta, Soybean Research, Vol 7, 2009
47. Low-power LFSR Kernel Architecture in Mobile Transmitter and Receiver Protocols and Software Defined Radios, C N Khairnar, Sanjiv Tokekar and Raj Kamal, International Journal of Recent Trends in Engineering (ISSN: 1797-9617), Vol. 2, No. 1, pp20-26, Nov 2009
48. A web-based intelligent disease diagnosis system using a new fuzzy logic approach for drawing the inferences in crops, Submitted to World Congress On Nature and Biological Inspired Computing (NaBIC2009), Savita Kolhe, Raj Kamal, H.S. Saini ,and G.K.Gupta, Communicated, Proceedings to be published in IEEE Computer Society and indexed by both EI (Compendex) and ISTP (Published in IEEE Xplore), December 9-11, pp. 812-817, 2009
49. KMSCD: Knowledge Management System for Crop Diseases, Savita Kolhe, Raj Kamal, H.S. Saini ,and G.K.Gupta, presented at World Congress on Nature and Biologically Inspired Computing (NaBIC 2009), IEEEExplore
50. “Applying HPC and Virtual Reality for Modeling of Traction Systems”, International Journal of Academic Research, Azerbaijan, May 2010 issue, vol. 2, No. 3, pp.107-116.
51. “Modeling and Reliability Analysis of CNT and MEMS based Wireless Sensor Network”, International Journal of Academic Research, Journal of Mathematics and Technology, Azerbaijan, February 2010 issue, vol. 1, issue 1, pp.

- 136-146.
52. Simulation and Synthesis of Synchronous Optical Network Standard
Synchronous Transport Signal STS-12 Transmitter”, PACE, A journal of Research of Prestige Institute of Management, India, Vol. 1 No.1, Jan. 2010 issue, pp. 61-67.
 53. “Efficient Memory Mapping in GSM phones”, International Journal of Recent trends in Engineering, Academy Publishers and ACEEE, Finland, November, 2009.
 54. Journal of Electronics and Computers Volume 2, Number 1, ISSN:0975-3796: “Need of Image Compression for Position Explorer Engine based on Cell Phone”, International Conference TRACE-2010, PP 233-238, 2010

International Conference Papers

55. “A Novel way of Intelligent Network Identification in GSM Networks”, 2nd International Conference on Future Networks, (ICFN 2010), Sanya, China, Jan. 22-24, 2010.
56. “Comparison of Learning Approaches in AI”, 2nd International Conference on Computer and Electrical Engineering (ICCEE 2009), Dubai , UAE, 28 - 30 December 2009.
57. “Critical Evaluation of Connection Admission Control methods in ATM Networks”, 2009 International conference on Information and Multimedia Technology(ICIMT-2009), Jeju Island, South Korea, 18-19 December, 2009.
58. Evaluation of AI Applications, 2009 International conference on Information and Multimedia Technology(ICIMT-2009), Jeju Island, South Korea, 18-19 December, 2009.
59. Wireless Telemetry controlled Robot, International Conference on Computer Technology and Development, ICCTD 2009, Kota Kinabalu, Malaysia, November 13 - 15, 2009.
60. A Novel technique for Colour Sensing of Object using RADAR, International Conference on Information Technology ICIT 2009, Venice, Italy, October 28-30, 2009.
61. A Low Power Muscle Stimulation Technique, International Krygyz-Kazakh Electronics & Computer Conferences (IKECCO 2009), Almaty, Kazakhstan 12-13 October, 2009.
62. Comparative Evaluation of Sensor Network Routing Protocols, International Conference on Computer and Information Science ICCIS 2009 Amsterdam, The Netherlands, September 23-25, 2009.
63. Qos Guaranteed Routing Protocols for Sensor Networks, International Conference on Computer Science and Software Engineering ICCSSE 2009, Singapore, August 26-28, 2009.

64. Evaluation of Planning Approaches in AI, International Conference on Computer Science and Information Systems Engineering, ICCSISE 2009, Singapore, August 26-28, 2009.
65. Maintaining QoS in Digital watermarking Schemes, International Conference on Computer Science and Information Systems Engineering ICCSISE 2009 Singapore, August 26-28, 2009.
66. Fuzzy Logic Based Congestion Control approach in GSM Networks, International Conference on Computer Science and Information Systems Engineering, ICCSISE 2009, Singapore, August 26-28, 2009. Embedded Handheld Spirometer with a Graphical LCD Display, International Conference on Bioinformatics and Computational Biology (BioComp'09) under WORLDCOMP'09 - The 2009 World Congress in Computer Science, Computer Engineering and Applied Computing, Las Vegas, Nevada, USA, July 13-16, 2009.
67. Efficient FPGA Implementation of Multiplexers, International Conference on Modeling, Simulation & Visualization Methods (MSV'09) under WORLDCOMP'09- The 2009 World Congress in Computer Science, Computer Engineering and Applied Computing, Las Vegas, Nevada, USA, July 13-16, 2009.
68. Kirti Panwar "Best Route Finder Smart Vehicle" in the II International Conference on Opportunities and challenges in Global Business organized by International Institute of Foreign Trade and Research, Indore, Feb 13-14, Page: 14, 2010
69. Kirti Panwar "Interactive Local Transportation System using GIS and GS" in the II International Conference on Opportunities and challenges in Global Business organized by International Institute of Foreign Trade and Research, Indore, Feb 13-14, Page: 14, 2010
70. Ms. Pallavi Yarde, Ms. Rashmit Khanuja, Mr. Arun Pandey, "Innovated Transportation System (InTS): as a solution for the Challenges of Operation Management", International Conference at IIFTR, Indore, Page 12, 2010
71. Ms. Amrita Tiwari, Ms. Nikita Shukla, "Visualization of Location Based Services using SVG", International Conference at IIFTR, Indore in 2010
72. Ms. Parul Jain, Ms. Surabhi Jain, Mr. Tushar Kumar Shrivastava "Spatial Database Intelligence in Traffic Control (SDITC)", International Conference at IIFTR, Indore in 2010

National Journal

73. Comparison of CAN, TTCAN and FlexRay and their suitability in safety critical applications, Proc. National Conference on Emerging, Electronic and Computing Systems, April 02-03, 2010
74. Kirti Panwar "Dominant use of Variable over Signal for Behavior Modeling in VHDL" in the National Conference of Shanti Swarup Bhatnagar Award Winners organized by Devi Ahilya University, July 17-19, 2009, Page: 35, Indore.
75. Kirti Panwar, Uma Rajchandani, Ashwani Kumar "VGA Signal Generation using FPGA (Spartan 3E)" in the National Conference of Shanti Swarup Bhatnagar Award Winners organized by

2009-10

76. A fuzzy-logic based on-line disease diagnosis system for soybean, Savita Kolhe, Raj Kamal, Harvinder S. Saini and G. K. Gupta, Soybean Research, Vol 7, 2009
77. Low-power LFSR Kernel Architecture in Mobile Transmitter and Receiver Protocols and Software Defined Radios, C N Khairnar, Sanjiv Tokekar and Raj Kamal, International Journal of Recent Trends in Engineering (ISSN: 1797-9617), Vol. 2, No. 1, pp20-26, Nov 2009
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82. Simulation and Synthesis of Synchronous Optical Network Standard Synchronous Transport Signal STS-12 Transmitter, PACE, A journal of Research of Prestige Institute of Management, India, Vol. 1 No.1, Jan. 2010 issue, pp. 61-67.
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85. “A Novel way of Intelligent Network Identification in GSM Networks”, 2nd International Conference on Future Networks, (ICFN 2010), Sanya, China, Jan. 22- 24, 2010.
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 95. "Maintaining QoS in Digital watermarking Schemes", International Conference on Computer Science and Information Systems Engineering ICCSISE 2009 Singapore, August 26-28, 2009.
 96. "Fuzzy Logic Based Congestion Control approach in GSM Networks", International Conference on Computer Science and Information Systems Engineering, ICCSISE 2009, Singapore, August 26-28, 2009.
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104. Comparison of CAN, TTCAN and FlexRay and their suitability in safety critical applications, Proc. National Conference on Emerging, Electronic and Computing Systems, April 02-03, 2010
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106. Kirti Panwar, Uma Rajchandani, Ashwani Kumar “VGA Signal Generation using FPGA (Spartan 3E)” in the National Conference of Shanti Swarup Bhatnagar Award Winners organized by Devi Ahilya University, July 17-19, 2009, Page: 34, Indore.

2008-09

107. Modeling the system tasks and deploying the Orchestrator tasks for Communication of Messages from the Music files in a Robotic Orchestra, Raj Kamal and H. S. Saini , CSI Communications, Nov. 2008
108. Low-power LFSR Kernel architecture in mobile transmitter and receiver protocols and software defined radios, C N Khairnar, Raj Kamal, and Sanjiv Tokekar, Communicated, 2008
109. Manju K. Chattopadhyay, Sanjiv Tokekar, “Thermal model for dc characteristics of algan/gan hemts including self-heating effect and non-linear polarization” Microelectronics Journal 39 (2008) 1181–1188
110. Manju K. Chattopadhyay “Thermal Model for AlGaN/GaN HEMTs Including Self-Heating Effect and Non-linear Polarization” Microwave 08, international conference on Microwave Devices and circuits, Nov 21-24, 2008 Jaipur
111. “E- Governance: Windows to Success”, Proc. of the National Conference on Business Technologies(IT that drives Business), TRUBA College of Engineering and Technology , Indore, Mar. 13-15, 2009.
112. Kirti Panwar, Ashwini S. Patankar “ Can 3G Affirm Security

- Measures: An Insight View ” Communicated to National Conference on “Business Technologies” organized by Truba College of Engineering & Technology TBTC’09, Indore from 13-14 March, 2009
113. “HMIS: Hospital Management Information System - An Economical Investment to Manage Healthcare Information”, Proc. of the National Conference on Business Technologies(IT that drives Business), TRUBA College of Engineering and Technology , Indore, Mar. 13-15, 2009.
 114. “Mobile Location Based Services using XML” at geomatrix’09 in IIT Bombay, dated 29 Feb – 1 March.
 115. “Optimum XML Parsing for Mobile Based Location Services” at TBTC’09 in Truba Collage of Engineering, dated 13-14 March
 116. “Mixed Signal Hardware Description Languages VHDL-AMS and Verilog AMS-Compared and Contrasted”, Proc. of the 3rd National Conference; INDIACom-2009 Computing For Nation Development, Bharati Vidyapeeth’s Institute of Computer Applications and Management, New Delhi, Feb. 26 – 27, 2009.
 117. “Biotelemetry based wireless patient monitoring system”, Proc. of the 3rd National Conference; INDIACom-2009 Computing For Nation Development, Bharati Vidyapeeth’s Institute of Computer Applications and Management, New Delhi, Feb. 26 – 27, 2009.
 118. “Adaptable Power Data Compression / Decompression Technique”, Proc. of the 3rd National Conference; INDIACom-2009 Computing For Nation Development, Bharati Vidyapeeth’s Institute of Computer Applications and Management, New Delhi, Feb. 26 – 27, 2009.
 119. “Small Signal and Large Signal Device Modeling using VHDL-AMS Language”, Proc. of Third National IT Conference on IT Enabled Practices and Emerging Management Paradigms, Prestige Institute of Management and Research, Indore, Sept. 12-13, 2008.
 120. Aparna Deo “Digital Audio Effects: Matlab Implantations” NCAFIS-08 organized by :SCSIT, DAVV, dated 16-17 August, 2008.
 121. Mobile Devices with Embedded Local Intelligence and Spatial Databases for the Supply Chain Management Applications, Raj Kamal and Preeti Saxena, Nirma International Conference on Supply Chain, Jan.9-11, 2008

- Monographs
- Chapters in Books Edited Books
- Books with ISBN with details of publishers
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- Citation Index – range / average
- SNIP
- SJR
- Impact Factor – range / average : 0.5
- h-index

23. Details of patents and income generated : None
24. Areas of consultancy and income generated : Embedded Systems
25. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad : None
26. Faculty serving in
- a) National committees b) International committees c) Editorial Boards d) any other (please specify)
 1. Dr. Rajkamal, Dr. S. Katiyal, Dr. A. Kumar serve as Technical Support committee of many Conferences
 2. Dr. S. Katiyal, Dr. Manju K. Chattopadhyay serving as member, Board of Studies, Holkar Science College, Indore
 3. Dr. A. Kumar Serving as Dean, Faculty of Engineering Science
 4. Ms. P. M. Umale Serving as member, Board of Studies, Electronics Science.
27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).
1. Faculty members have been encouraged to attend Tutorials, workshops being held at IIT's and other institutes of repute in periodic intervals. Faculties have participated in hands-on training on latest microcontroller technology, wireless communication, and instrumentation design.
 2. Faculty members have been encouraged to pursue research work/project vigorously and seek funding from available national bodies.
 3. Faculty members have also been encouraged to pursue higher technical degrees
28. Student projects
- percentage of students who have done in-house projects including inter-departmental projects : M.Sc.: 100%, M.Tech. 5%
 - percentage of students doing projects in collaboration with other universities
/ industry / institute : M.Tech. 95%, M.Sc. 0%
29. Awards / recognitions received at the national and international level by
- Faculty : Nil
- Doctoral / post doctoral fellows : Following students working for their Ph.D. under Prof Raj Kamal as supervisor, got recognition as following details:

- A research paper titled “Rule Promotion: A New Fuzzy Approach for Drawing the Inferences in Rule-based Expert System by Savita Kolhe, Raj Kamal, Harvinder S Saini and GK Gupta published in Volume 65, No.3, December, 2011, pp 359-365 has been selected for best paper award in the field of Statistical Methodology by Indian Society of Agricultural Statistics.
 - Paper Machine learning techniques for Mobile Intelligent Systems: A study, Archana Chaudhary, Savita Kolhe and Raj Kamal, Ninth International Conference on Wireless and Optical Communications Networks (WOCN), 20-22 Sept. 2012, published in IEEE Xplore, won award at the conference by Archana Chaudhary
 - Students
 - 04 students got selected for UGC's Rajiv Gandhi fellowship (SC/ST) scheme for Professional Courses for SC/ST candidates for the year 2010-11 during the financial year 2011-12
 - Gold Medal awarded yearly to the topper of M.Sc. Electronics & Communication, M.Tech. Mobile Computing Technology, M.Tech. Spatial Information Technology, M.Tech. Embedded System.
30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of outstanding participants, if any.
Training program organized
- Short term Training Programme on Embedded System Programming (SESP-12), by Prof. P.W. Dandekar, SVCE Indore. Date 24-26 Feb. 2012.

Three Workshops were organized during current year

1. Workshop on “Mobile Computing” 05th March, 2012 Jointly Organized by School of Electronics and School of Computer Science & IT, Devi Ahilya University, Indore & Institution of Communication Engineers and Information Technologists, Devi Ahilya University, Indore Chapter. Experts were Prof. H. M. Gupta, IIT Delhi and Mr. Nilesh Maheshwari, Founder & CEO at eMorphis Technology Solutions.
2. UGC Sponsored “National Workshop on Mobile System Programming (NWMSP- 2012)” on 10th – 11th Feb, 2012. Expert was Dr. S.R.N Reddy from IGIT, Indraprastha University, New Delhi
3. Workshop on “Android Application Development” by Mr. Nitin Gharia, Sofmen Technology, Indore on 15th Oct, 2011

Seminars organized

- Seminar on “Personality development and attitude building”, By Mr.

- Sandeep Atre , Edge Maker, Indore on 3rd Sep, 2011
- Student Career Guidance Seminar, By Mr. Deepak Mittal (GM), Tata Communication, Mumbai on 23rd July 2011
 - National Workshop on Mobile System Programming by Dr. S.R.N Reddy , Assistant Professor at IGIT, Indraprastha University, New Delhi. Dated 10-12 Feb. 2012.
 - Workshop on Mobile Computing (WCM- 2012),” ICEIT-DAVV Indore Chapter, speaker Prof. H. M. Gupta, IIT Delhi, on 12th March 2012.
 - A motivational lecture on "Secrets of Success", by Mr. Chitlay (World Renowned Spiritual Leader & Humanitarian). Date 06th March'2012, Tuesday.
 - Workshop on “Mentoring Inspirational lecture on Innovations in Computer, Mobile and Tablets” By Dr. Raj Kamal, Professor School of Computer Science and Electronics, DAVV, Indore. Date 21st Jan 2013
 - National Conference on "Emerging Electronics and Computing Systems" (NCEECS, 2010) & Workshop:
 1. One day Workshop:29th March, 2010 - 01st April, 2010
 2. Two days Paper Presentations: 02nd April, 2010 - 3rd April, 2010.

B. List highlighting the names of eminent scientists/scholars who participated in these events.

1. Padamshri Dr. D. D. Bhawalkar,
2. Prof. P.W. Dandekar, Tata Motors, (now at I.I.T Gandhinagar)
3. Prof Venkatachalan, IIT Bombay
 - Second Conference of Shanti Swarup Bhatnagar National Awardees (Biological, Chemical, Earth, Atmosphere, Ocean and Planetary, Engineering, Mathematical, Medical and Physical Sciences) Jointly Organised by Faculty of Science, Life Sciences and Engineering Sciences, July 17-19, 2009
1. Padam Vibhushan Dr. Anil Kakodakar
2. Padam Bhushan Dr. T Alex
3. Padam Shri M. S. Sodha, FNA
4. Padamshri Dr. D. D. Bhawalkar
5. Prof. Ajoy. K. Ghatak, Emeritus Professor, I.I.T. Delhi

31. Code of ethics for research followed by the departments :
 - Respect for intellectual property rights of individual and institution
 - Follow the principles of ethics and social responsibility

32. Student profile programme-wise:

Name of the Course	Applications received	Selected		Pass percentage			
		Male	Female	Male	Female		
M.Tech.	525	50	7				
M.Sc. Electronics & Communication	21	14	7				
M.Sc. Electronics	10	6	4				

33. Diversity of Students

Name of the Course	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Sc.	10%	10%	80%	Nil
M.Tech.	5%	70%	25%	Nil

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Year	NET	GATE
2009	0	5
2010	0	0
2011	0	3
2012	4	3
2013	2	1

35. Student progression

Student progression	Percentage against enrolled
UG to PG	NIL
PG to M Tech	7
PG to Ph.D.	1
Ph.D. to Post-Doctoral	NIL
Employed	100
• Campus selection	20
• Other than campus	80

Student progression	Percentage against enrolled
recruitment	
Entrepreneurs	NIL

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	80
from other universities within the State	10
from universities from other States	10
from universities outside the country	00

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : 2 Students were awarded M. Tech. Degree

38. Present details of departmental infrastructural facilities with regard to

a) Library:

- Departmental library is having more than 10000 books
Titles: 4000; Volumes: 11048
- Book bank facility is provided to students in each semester

b) Internet facilities for staff and students 24x7 Internet Facility is available.

c) Total number of class rooms: 05

d) Class rooms with ICT facility: Multimedia/ LCD in every classroom/Lab and full power back up in the laboratories/class rooms

e) Students' laboratories: 04

f) Research laboratories: 03

39. List of doctoral, post-doctoral students and Research Associates

a) from the host institution/university

1. Parag Parandkar
2. Kapil Kushwah
3. Anoop Tiwari
4. Namit Gupta

b) from other institutions/universities

1. Amit Udawat, RGPV, Bhopal
2. Shitesh Tiwari, RGPV, Bhopal
3. Ajay Kulkarni, RGPV, Bhopal
4. Sadhan Chandra Das
5. Shekhar Sharma, RGPV, Indore

6. Vibha Tiwari, RGPV, Bhopal
7. Sarita Kansal, RGPV, Bhopal
8. Suvarna Joshi, Univ of Pune, Pune

40. Number of post graduate students getting financial assistance from the university.

13 students in each M.Tech. course i.e. A total of 39 students receive AICTE stipend each year.

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

M.Tech. Mobile Computing Technology started in 2008-10 batch

Course curriculum is updated every year to meet the current market and technical man-power needs.

New Subjects included in the curriculum are:

- DBMS & .Net framework in all the M.Tech. Courses
- Advanced Java Programming in M.Tech.(MCT/SIT)
- Mobile computing programming – Python in M.Tech.(MCT)
- Advanced Microcontrollers – ARM in M.Tech.(ES)
- Linux and Shell programming in M.Tech.(ES/MCT)

42. Does the department obtain feedback from

- a. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

The department committee comprising of all professors, Senior most lecturers and senior most readers takes decision about modification, addition or deletion of course content/ new courses etc. This is as per provisions of ordinance 31 of the University. A workshop for assessment is conducted at the end of every semester. Faculty is guided appropriately.

- b. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

At the end of every semester, student feedback is taken on every theory paper taught, also on infrastructure facilities etc. Head of department discuss feedback with individual faculty members and give advice for improvement. When curriculum is revised, the suggestions given by students are kept in view.

- c. Alumni and employers on the programmes offered and how does the department utilize the feedback?

Feed back is taken from alumni through mail. It is utilized to upgrade the scheme and syllabus is oriented according to the market needs. Numbers of students are selected in final year to do projects in leading companies due to reputation of School among employees in areas of Embedded Systems, Mobile computing Technology and Spatial Information Technology.

43. List the distinguished alumni of the department (maximum 10)

1. Mr. Salil Sharma, Director, SAGE Tech., USA
(SAGE Tech Gold Medal is sponsored by him for Topper of M.Sc. (Electronics))
2. Mr. Deepak Mittal, Tata Communications, Mumbai
3. Ms. Radhika Mittal, IFlex, Mumbai
4. Mr. Sandeep Bhattacharya, Sr. Design Engineer, ST Microelectronics
5. Dr. Prakash Bishnoi , Went for PhD. To Uppsala University, Sweden (550 years old University with many Nobel Laureate, discovered multiwavelength laser)
6. Mr. Akhil Gokhale, Wipro Technologies, Hyderabad
7. Mr. Rupesh Kanojia, Sr. Technologist, MSIT - SAP Basis, Microsoft India (R & D) Pvt. Ltd.
8. Mr. Ajit Rayaroth, Oracle Financial Services Software Ltd.
9. Mr. Dinesh Tripathi, Technical Lead, GE (General Electric Co. USA) in Hyderabad
10. Mr. Deepak Dhadwal, Philips, Bangalore
11. Mr. Rakesh Pritmani, ISRO
12. Mr. Anil Sukheja, ISRO
13. Mr. Amit Karkare, IBM India Pvt. Ltd Noida
14. Mr. Nishit Rawal, Network Security Consultant, Cisco, Bangalore
15. Ms. Mehga Singh (Bannerji), Release Manager, Wipro Infotech, Gurgaon
16. Mr. Anusharan Tiwari, Technical Lead, BrickRed Technologies, Noida
17. Mr. Arun Kumar Arrawatia, Sr. Design Engineer, ST Microelectronics
18. Mr. Suraj Prakash Pradhan, Cadence Design Systems, Delhi
19. Mr. Chandresh Dubey, Sr DSP Engineer, ATC Labs Noida
20. Mr. Vinit Saraswat, City Bank, New Jersey USA
21. Mr. Yogindra Trivedi, CISCO, Venezuela
22. Mr. Santosh Vishwakarma, Assistant Professor, IIT Indore.
44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

1. Lecture series on Mahamana Madan Mohan Malviya ji was held on 06/11/2012 and 11/12/2012 Dr.Karan Singh, Hon'ble Justice Shri Girdhar Malviya, and Mrs. Kanta Malviya were the speakers. Series was organized by University
2. Lecture on Swami Vivekanand's Contribution and Message to youth was held on Jan.12, 2013 organized by University.
3. Bharat Ratna Dr. A.P.J. Abdul Kalam's message to University and college students on June 12, 2013 organized by University.

One Short term training programme was conducted by the School.

1. IEEE and UGC sponsored "Short Term Training Programme on Embedded System Programming (SESP - 2012)", 24th -26th Feb 2012. Expert was Prof. P.W. Dandekar, SVCE Indore.

Three Workshops were organized during current year by the School.

1. Workshop on "Mobile Computing" 05th March, 2012 Jointly Organized by School of Electronics and School of Computer Science & IT, Devi Ahilya University, Indore & Institution of Communication Engineers and Information Technologists, Devi Ahilya University, Indore Chapter. Experts were Prof. H. M. Gupta, IIT Delhi and Mr. Nilesh Maheshwari, Founder & CEO at eMorphis Technology Solutions.
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4. Workshop on "Mentoring Inspirational lecture on Innovations in Computer, Mobile and Tablets" By Dr. Raj Kamal, Professor School of Computer Science and Electronics, DAVV, Indore on 21st Jan 2013

Two Seminars were organized by the School.

1. Seminar on "Personality development and attitude building", By Mr. Sandeep Atre , Edge Maker, Indore on 3rd Sep, 2011
 2. Student Career Guidance Seminar, By Mr. Deepak Mittal (GM), Tata Communication, Mumbai on 23rd July 2011
45. List the teaching methods adopted by the faculty for different programmes.
- A. Teaching Method: School uses both MMP and blackboard teaching. More focus on MMP. A Seminar hall is equipped with Electronic Board. Class room teaching will include both the methods of teaching.

Laboratories: Following laboratories are already running in the department.

- *VLSI & Embedded systems Lab:* EDA Tools- Mentor Graphics HEP-1 and 2, Xilinx9.2, Tanner Tool, Cadence, Synopsis, Active HDL, TI DSP Processor 6000 Series, MATLAB and toolboxes, 8051 & ARM Keil IDEs, Rabbit PIC Microcontrollers and PICTail, VGA with Touch screen QVGA, FPGA and CPLD Development kit.
- *Spatial Information Technology Lab:* LPS GEOMATICA ENVI version 10.1 & 10.2, ArcGIS 9.3, GPS Handheld receiver, GPS Trainer Kit, LabView 7.0 with Data Acquisition Card, GPS Bluetooth Data Logger, GPS Vehicle Tracker
- *Microcontroller & Microprocessor lab:* 8051, 68HC11, 80c196 Emulator, Embedded Workbenches for Intel 8051, Motorola 68HC11, Intel x96 microcontrollers 8031/8051 Microcontroller Trainer Kit
- *Mobile Computing Technology Laboratory:* GSM Trainer Kit, RFID Trainer Kit, CDMA Trainer Kit, RFID Reader and Development Kit, Mobile Exchange Trainer Kit, QAM Trainer Kit. Software Modules for Mobile Application Development.
- *Computer Lab:* 100+ Pentium Computers

B. Evaluation of Student

- The continuous evaluation system is already in place as per ordinance 31. This includes periodic tests, quizzes, assignments, seminars etc in every theory papers taught.
- Introduction of CBCS Scheme: The CBCS scheme is already prevalent in most of leading IITs in their curriculum and its advantages are greatly student's career oriented. The department plans to introduce CBCS scheme from next academic year

C. Industrial Visit: Students will be motivated to visit the electronic industries/organizations to study the actual application of various electronics processes.

D. Expert Lectures Delivery: Various expert lectures on different topic are proposed to organize in 2013-14

- Mobile Computing
- Spatial Information
- Mobile Application
- Real Time Operating System
- Refresher course of Electronics will be organized in Dec, 2013 in collaboration with Academic Staff College, Devi Ahilya University

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?
- Regular Faculty meetings are held by the HOD. Register is maintained (Enclosed)

- Innovative Method of learning are monitored by the HOD.
- A manual is prepared and distributed to M.Tech students for guidelines in their M.Tech major Project. (A manual was prepared to guide M.Tech. students about the work and ethics related to it. The manual describes in detail how to prepare the thesis as well. All the formats are given in it.)
- It is compulsory for the students to submit monthly reports about their projects. These are analyzed on monthly basis by the head of the department and respective Course Coordinator. Students are advised for improvement based on this analysis.
- Monthly reports are attached in Major Thesis for record.
- Students are encouraged to publish their work in form of papers and books.

Sample of an analysis of M.Tech. (MCT) Monthly reports:

M Tech (Mobile Computing Technology) 2010-12

Roll No.	Name of student	Grade	Remarks
10MTMCT01	ANURAG CHATURVEDI	REPORT NOT SENT	
10MTMCT02	ARVIND KUMAR MADDHESHIYA	REPORT NOT SENT	
10MTMCT03	CHANDRA SHEKHAR GOHIYA	C+	1. No work done reported for Jan 2. Send snap shots of results for the month of Feb
10MTMCT04	DEEPAK BICHOLIA	C+	1. Send snap shots of results for the month of Feb 2. Performance is below average 3. Explain why you spend only 4 hours per day for project
10MTMCT05	JITENDRA NANDIYA	D	1. Title is not suitable. Give appropriate title to your work 2. send specific work done with results snapshots and send results obtained so far 3. second report not received
10MTMCT06	KRISHNA CHAITANYA T.	B+	1. Work seems to be done jointly with Pravin Thogarla. Joint project is not acceptable. 2. Write a different suitable title of your project
10MTMCT07	MAYANK SHUKLA	A	Performance is ok
10MTMCT08	MEENAKSHI AKHAND	D	Unsatisfactory work
10MTMCT09	NEETI SAXENA	C	1. Title is not suitable. Give appropriate title to your work 2. Elaborate your work and send results obtained so far 3. No progress is seen monthwise.
10MTMCT10	NITIN KUMAR GHARIA	B+	1. Title is not suitable. Give appropriate title to your work 2. Elaborate your work and send results obtained so far
10MTMCT11	PRAVEEN THOGARLA	B+	Performance is ok
10MTMCT13	RAHUL DUBEY	C	1. Report for Feb not received 2. actual work done by you is unclear
10MTMCT14	RITU CHHALOTRE	-	
10MTMCT15	RITU VERMA	C+	1. Title need to be specific and well meaning 2. Elaborate your work in 100 words
10MTMCT16	RUPALI PATIL	REPORT NOT SENT	
10MTMCT17	SHASHWATI MUSALGAONKAR	A	1. Title need to be specific and well meaning 2. Mention name of month w.r.t. point no.5 3. Send snapshots of results

47. Highlight the participation of students and faculty in extension activities.

Students participate in Blood donation camps and other charity programs. They also participate in University organized Computer awareness programmes, Khan River Cleaning Campaign, Environment awareness program. Department also follows University's Green Initiative. A Lecture on Ozone layer is scheduled in September by subject expert.

48. Give details of "beyond syllabus scholarly activities" of the department.
Faculties help students to prepare for various competitive exams. Informal guidance and counseling are continuously provided to students by different faculty members of the department
49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. Nil
50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

School has contributed by promoting technical education and research in the important and fast growing areas of Communication, Signal Processing, Networking, VLSI and Embedded Systems, GIS, Mobile Computing Technology.

School has contributed for implementing following vision :

1. Creation a state-of-the-art education, training and research in the field of VLSI Design, Embedded Systems, Digital Signal Processing, Computer Networking, GIS Data Processing at Postgraduate and Doctoral level.
 2. Imparting quality technical education of international standard and imbibe skills for solving real life problems.
 3. Inculcating national/global perspective in attitude among students so as to equip them to face challenges ahead. To cultivate adoption of ethics, morality and healthy practices in professional life among students so as to enable them becoming better citizens of the country.
- (i) Department is running three innovative M. Tech. courses started first time in the Country and two M.Sc. Program
- (a) M.Tech. (Embedded System)
Specialization: Advanced Microcontrollers, CMOS & VLSI Design, RTOS, Embedded Systems, DSP.
 - (b) M.Tech. (Spatial Information Technology)

Specialization: Remote Sensing, Digital Image Processing, DBMS & . NET, ArcGIS, DSP

(c) M.Tech. (Mobile Computing Technology)

Specialization: Mobile System Programming – Python, Advanced Java, Mobile Computing, Mobile Communication, DSP

(d) M.Sc. (Electronics & Communication)

Specialization: Computer Networks, Wireless & Mobile Communication.

(e) M.Sc. (Electronics)

Specialization: Microcontrollers, VLSI Design & Embedded Systems.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Five identified strengths from SWOT analysis

1. Innovative M. Tech. courses, all the courses are first of their own kind in the Country. All the M. Tech. and M. Sc courses are AICTE/UGC approved
2. Reputation of our courses in Leading top grade companies in the field is very high (Example, Tata Motors, Crompton Greaves, Tata Elxsi, ST Microelectronics (A S.J. Thomson France Group Company), CISCO and others)
3. Very good research and text books publications
4. Excellent ICT infrastructure and power backup
5. Significant percentage of students perform one final year project in Companies and therefore the student placement is very good

Five identified weaknesses:

1. Shortage of permanent faculty needing the reliance on Visiting and contractual faculty
2. Need of more student centric teaching approach
3. Need of additional technical staff for laboratories and projects
4. Need to upgrade and Maintain very high teaching and research standards due to inadequate permanent Ph. D. and experienced faculty due to inadequate budgetary support of the State

5. Need to upgrade and maintain very high laboratory standards due to inadequate budgetary support of the State which means reliance on Student fees only for upgrading and maintenance

Five opportunities

1. New International and National level collaborations proposed to be undertaken in near future so as to enhance capacity building in knowledge creation
2. Research skill and aptitude of the faculty and the students used for new innovations.
3. Exploration of avenues for linkage of strength in VLSI, Embedded, Signal Processing and Mobile computing technology with the industry
4. Optimum use of flexibility approach to explore the unexplored domains so as to upgrade curriculum from time to time with the advent of ICT and virtual class room technology .
5. Enhanced use of animation and video lectures in class room lectures so as to build better bridge between teacher and the taught.

Five Challenges

1. To become national and global leader in VLSI, Embedded, Signal Processing and Mobile computing technology areas
2. Imbibing Entrepreneur skills so that alumni can set their own units
3. New innovations and adaptability to emerging demands of identified areas.
4. Research work on VLSI less than 20 nm technology, 4G mobile technology and high performance signal processing
5. Mobilization of knowledge creation with knowledge propagation.

52. Future plans of the department.

A. Plan on improvement in Infrastructure:

(i) School has modern Building with beautiful garden, fully Wi-Fi, Departmental Library with 10000+ books, 24x7 Internet, Multimedia/LCD in every classroom/Lab and full power back up in the laboratories/class rooms. Since school runs 5 courses, improvement of infrastructure is going on.

(ii) Plan is for improvement in the research activities, the department laboratories need to be strengthened. This will also help the present and future students of M.Tech./M.Sc. programmes.

(iii) Plan is for new laboratories in the broad area of Wireless Communication, Digital Communication, Advanced Embedded System, Spatial Database, RTOS to be set up.

(iv) Improvement in Placement Cell activities and Alumni Cell activities planned.

B. Plan for research activity & promotion:

(i) MOUs and Collaborations: In past, the department has signed MOU with IIT Pune, RRCAT Indore and CEERI, Pilani which shall help promote vigorous research activities among departmental faculty. The department plans to sign MOU with IIT, Indore.

(ii) Research projects carried out: Many research projects have been sanctioned to departmental faculty by different funding organization. Recently in the year 2008, UGC has granted Innovative Programme Project to start M.Tech. (Mobile Computing Technology) with seed funding of Rs. 50 lacs. In addition, UGC has also sanctioned Rs. 19 lacs under Infrastructure grant and XI Plan. This will have positive impetus to R&D Development in the department.

C. Setting up of new Laboratories: School is planning to set up new advanced laboratories:

- Database Laboratory
- RTOS Laboratory
- Research Centre for Mobile Computing Technology

D. Starting of New Courses: Department is planning to start new courses:

- M.Tech. (VLSI & Microelectronics)
- M.Tech. (ICT)
- M.Tech. (5 year) along with IET, DAVV

E. Plan on improvement in Relationship with stakeholders

Parent-teachers meet: School organizes Parent-teachers meet regularly which has definitely improved the relationship between faculty and parents. The meet was organized on 08th Sep, 2007 & on 24th Jan, 2009. Such interactions have also enabled us to know parent's expectations from us. School also plans to hold a number of teacher-students meeting (outside the regular class), and teacher-teacher meeting. Such interaction is expected to lead to improvement in the academic quality and overall environment of the School.

Alumni Activities: Last Alumni Meet was organized on 09th Jan, 2010. This enabled students to interact with their seniors. Alumni from abroad also came to attend the meet. The School maintains separate Alumni Cell in the department. The functioning of the cell spans from organizing expert lectures for soft skill development of students, to

organizing Cultural Activities of department and other Co-curricular and Extra-curricular activities for the benefit of the students.

Write up of efforts for Quality Sustenance and Assurance in the department- B

1. Periodical meetings, discussions and organization of seminars on the current topics in VLSI, Mobile, Signal Processing and Computing technology sustain quality in teaching and laboratory.
2. Full final year M. Tech projects in leading industries
3. Internet, Wi-Fi, Multimedia projection systems are used in all class rooms. Power point Presentations are available on the web site, which helped faculty to communicate the subject objectives and planning to students
4. Publications of Mobile Computing, Embedded systems and Microcontroller books
5. Feedback from stakeholders regularly taken, analyzed and monitored.

Students' feedback is taken at the end of every semester for all the subjects and for all concerned faculty members. The design of the questionnaire is as prescribed by NAAC.

For 2013-14 feedback will be taken two times at the end of the semester.

1. First Feedback taken in May, 2013.
2. Second Feedback will be taken in Dec, 2013.

The IQAC committee of the School statistically analyzes the form in a format for the feedback giving due weight to each quality related parameter. Scores obtained by each teacher for each course that he/she taught is conveyed in confidentiality to him/her.

A grievances resolution mechanism as follows: Grievance from students are mostly received and tackled through discussion with Class Representative and Class Coordinators of respective classes

6. Workshop on Quality Issues on Effective teaching and learning Processes on May, 10, 2013.
7. Workshop on Quality issues on Paper Setting and Evaluation, on Sep, 27, 2012.
8. Workshop on CBCS on May 15, 2013 (Lectures by Prof. Rege and her team from College of Engineering. Pune, one of oldest Engineering Institutions in the Country)
9. Special lectures on "Fostering Excellence in Research" organized by University on January 15, 2013. List of Speakers is as follows:

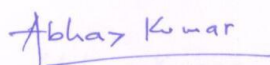
- (1) Prof. Priyankar Upadhyay UNESCO Chair Professor, Banaras Hindu University (BHU), Varanasi.
- (2) Prof. V. K. Singh, Director, Indian Institute of Science Education and Research (IISER), Bhopal.
- (3) Prof. H. Padh. Vice- Chancellor, Sardar Patel University, Vallabh Vidya Nagar, Gujarat.

Declaration by the Head of the Department- C

I certify that the data included in this Self-Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.


(Signature of IQAC Coordinator of the Department)
Professor & Head
School of Electronics
Devi Ahilya University
INDORE (M. P.) 452 017

Place: Indore

Date: 26 Aug 2013