



DEPARTMENT OF ELECTRONICS

1.	Name of the department	ELECTRONICS
2.	Year of Establishment	1986
3.	Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)	B.Sc. : PME, MECs BCA Certificate Course Diploma Course Advanced Diploma Course
4.	Names of Interdisciplinary courses and the departments/units involved	
	For BCA, <ul style="list-style-type: none"> • Theory and practical classes in Digital Electronics, • Theory & practical classes on Microprocessors & Assembly level Programming 	
5.	Annual/ semester/choice based credit system (programme wise)	Semester System : Prior to 2014 – 15 Choice Based Credit system: 2014 – 15 onwards
6.	Participation of the department in the courses offered by other departments	NIL
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	
	<ul style="list-style-type: none"> i) Memorandum of Understanding (MOU) with Silicon Smith India Ltd from 2009 to 2011 for running UGC Sponsored Add-on courses at Certificate and Diploma levels. ii) M.O.U with Vasundara Engineering and automation services from 2011 for running UGC Sponsored Add-on courses at Certificate and Diploma levels. iii) M.O.U with Karnataka German Technical Training Institute (KGTTI), Govt. of Karnataka from 2013 onwards to run UGC Sponsored Advanced Diploma course in Embedded product design. iv) M.O.U with Saga Edutech Services to conduct Practical training classes in PCB fabrication techniques and project building. 	



8.	Details of courses/programmes discontinued (if any) with reasons	NIL
9.	Number of teaching posts	
	Designation	Sanctioned
	Professors	NIL
	Associate Professors	3
	Asst. Professors	4
	Filled	NIL
	3	4

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience
R. Mallikarjuna Setty	M.Sc, M.Phil.	Associate Professor	Microwaves	26
Dr. M. Subramanya Bhat	M.Sc, M.Phil., Ph.D.,	Associate Professor	Microwaves	23
S.M.Mruthunjaya Swamy	M.Sc., M.Phil	Associate Professor	Microwaves	23
Dr. H.J. Thontadharya	M.Sc, M.Phil, Ph.D.,	Assistant Professor	NIL	13
V. Jyothi	M.Sc., M.Phil.	Assistant Professor	NIL	7
Smt. Fareena Begum	M.Sc.,	Assistant Professor	NIL	9
Mohammad Tanvir Ahmed	M.Sc.,	Assistant Professor	NIL	1

11.	List of senior visiting faculty	NIL
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty	10%
13.	Student -Teacher Ratio (programme wise)	B.Sc. : 35 : 1 BCA : 9 : 1 TOTAL : 44 : 1



14.	Number of academic support staff (technical) and administrative support staff			
	Category of support staff	Sanctioned	Filled	
	Technical staff	02	02	
	Academic support staff	03	03	
	TOTAL	05	05	
15.	Qualifications of teaching faculty with D Sc/ D.Litt. / Ph.D. / MPhil / PG		Ph.D	02
			M.Phil.	03
			PG	02
16.	Number of faculty with ongoing projects from		01	
	National Funding Agency		01	
	Agency	International Funding	NIL	
	Grants Received		Rs.2,00,000=00 from UGC	
	UGC MRP Project Title : "PSoC based Designing of Medical Instrumentation circuits."			
17.	Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received.		NIL	
18.	Research Centre /facility recognized by the University		NIL	
19.	Publications			
	Publication per faculty		3.71	
	Number of papers published in peer reviewed journals		26	
	National Journals		00	



	International Journals	26
	Books Edited	02
List of books authored by Prof. R Mallikarjun Setty		
	2012	Microcontrollers for B.Sc. Publishers : Sapna Publishers Year of Publication : 2012
	2013	Verilog and Instrumentation for B.Sc. Publishers : Sapna Publishers Year of Publication : 2013
	Books Edited with ISBN Numbers	NIL
	Impact factor	1.80
	h - index	2

Details of Papers Published in International Peer Reviewed Journals

Sl. No	Name of the Faculty	TITLE OF THE PAPER	JOURNAL	Year	IMPACT FACTOR	CITATIONS
1	M.Subramanya Bhat	<i>Link Quality Based Power Efficient Routing Protocol (LQ-PERP)</i>	International Journal of Computer Networking, Wireless and Mobile Communications	2014	5.3963	1
2	M.Subramanya Bhat	<i>Performance Evaluation of Connection Admission Control for IEEE 802.16 Networks</i>	International Journal of Computer Applications (IJCA)	2014	0.835	3



Sl. No	Name of the Faculty	TITLE OF THE PAPER	JOURNAL	Year	IMPACT FACTOR	CITATIONS
3	H. J. Thontadharya	Nine-Profile And Nine-Segment Temperature Programmer For Mashing Apparatus",	<i>International journal of Instrumentation Science and Technology,</i>	2014		1
4	Jyothi. V	Performance Study of Proactive, Reactive and Hybrid Routing Protocols for MANET in Multiple CBR Scenario	International Journal of Computer Science And Technology	2014		1
5	Jyothi. V	<i>Performance Study of Adhoc on-Demand Link Quality Aware Route Search Protocol (AO-LQARSP)"</i>	International Journal of Emerging Technology and Advanced Engineering (IJETAE), Certified Journal	2014	1.93	1
6	Jyothi. V	Establishing a Wireless Sensor Network to Monitor the Temperature in a two storied building"	International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE),	2014		1
7	M.Subramanya Bhat	<i>Performance Study of Adhoc on-Demand Link Quality Aware Route Search Protocol (AO-LQARSP)"</i> , ISO 9001:2008 Certified Journal.	International Journal of Emerging Technology and Advanced Engineering (IJETAE)	2013	1.932	1
8	M.Subramanya Bhat	Establishing a Wireless Sensor Network to Monitor the Temperature in a two storied building	International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, April 2013	2013		1



Sl. No	Name of the Faculty	TITLE OF THE PAPER	JOURNAL	Year	IMPACT FACTOR	CITATIONS
9	M.Subramanya Bhat	Performance Evaluation of Reactive Routing Protocols for IEEE 802.11	World Journal of Science and Technology (WJST)	2013		1
10	M.Subramanya Bhat	Effect of Idle mode on Power Saving in Mobile WiMAX Network	Intl. Journal- ICAdC, Advances in intelligent and soft computing- Springer	2013		1
11	H. J. Thontadharya	A Bandwidth Request Mechanism for QoS Enhancement in Mobile WiMAX Networks”	<i>International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering</i>	2013		1
12	H. J. Thontadharya	Performance Evaluation of Reactive Routing Protocols for IEEE 802.11”	World Journal of Science and Technology (WJST)	2013		1
13	H. J. Thontadharya	Simulation and Emulation Approach for the Performance Evaluation of Adaptive Modulation and Coding Scheme in Mobile WiMAX Network”	<i>International Journal of Computer Applications</i>	2013	0.835	1
14	H. J. Thontadharya	Study of Routing and Scheduling Algorithms in WiMAX Mesh and Multi Hop Networks”	<i>World Journal of Science and Technology</i>	2013		1
15	H. J. Thontadharya	Simulation Study on Improved AODV Routing Protocol”	<i>International Journal of Computer Information Systems</i>	2013		1



Sl. No	Name of the Faculty	TITLE OF THE PAPER	JOURNAL	Year	IMPACT FACTOR	CITATIONS
16	M.Subramanya Bhat	Wireless Sensor Networks: A Performance Study of IEEE 802.15.4 Standard	<i>International Journal of Advanced Research in Computer Science (IJARCS)</i>	2012		1
17	M.Subramanya Bhat	Simulation and Emulation Approach for the Performance Evaluation of Adaptive Modulation and Coding Scheme in Mobile WiMAX Network”	<i>International Journal of Computer applications</i>	2012	0.835	1
18	M.Subramanya Bhat	<i>Simulation Study on Improved AODV Routing protocol”</i>	International Journal of Computer Information Systems (IJCIS)	2012		1
19	M.Subramanya Bhat	<i>Scenario Based Study of On-demand reactive routing protocol for IEEE-802.11 and 802.15.4 standards</i>	International Journal of Computer Science & Communication Networks (IJCSCN)	2012		1
20	M.Subramanya Bhat	<i>Performance Analysis of ARQ Mechanism in WiMAX Networks”</i>	International Journal of Computer Science & Communication Networks (IJCSCN)	2012		1
21	M.Subramanya Bhat	<i>Performance Study of Bandwidth Request Mechanisms in IEEE 802.16e Networks”</i>	International Journal of Computer Science & Communication Networks (IJCSCN)	2012		1
22	M.Subramanya Bhat	A Performance Study of Proactive, Reactive and Hybrid Routing Protocols using Qualnet Simulator	International Journal of Computer Applications	2012	0.835	16



Sl. No	Name of the Faculty	TITLE OF THE PAPER	JOURNAL	Year	IMPACT FACTOR	CITATIONS
23	H. J. Thontadharya	Performance evaluation of reactive routing protocols for IEEE 802.11”	<i>World Journal of Science and Technology</i>	2012		1
24	H. J. Thontadharya	Performance Study of Bandwidth Request Mechanisms in IEEE 802.16e Networks”	<i>International Journal of Computer Science & Communication Network</i>	2012		1
25	H. J. Thontadharya	Performance Analysis of ARQ Mechanism in Wimax Networks”,	International Journal of Computer Science & Communication Networks,	2012		1
26	H. J. Thontadharya	Performance Evaluation of VoIP in Mobile WiMAX; Simulation and Emulation studies”	<i>International Journal on Computer Science and Engineering (IJCSE)</i>	2012		1

20.	Areas of consultancy and income generated	
	Consultation for the fabrication of Custom built Experimental Kits by Saga Eductech services and Electronics Instrument Company. Income Generated: NIL	
21.	Faculty as members in	
	a. National Committees	NIL
	b. International Committees	NIL
	c. Editorial Boards	NIL
22.	Student projects	



	a) Percentage of students who have done in-house projects including inter departmental/programme	100%
	b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies	NIL

23. Awards and Recognitions received by faculty and students

Sl. No.	Name of the faculty	Year	Member of panel / Board of studies (BOS)
1	R. MALLIKARJUNA SETTY	2010-11	Member BOS, Bangalore University,
2	R. MALLIKARJUNA SETTY	2010-14	Member BOS, Christ University
3	R. MALLIKARJUNA SETTY	2010-14	Member BOS, National College , Autonomous, Basavanagudi,
4	R. MALLIKARJUNA SETTY	2010-14	Member BOS, Mount Carmel College, Autonomous,
5	R. MALLIKARJUNA SETTY	2010-14	Member BOS, Jyothi Nivas College, Autonomous,
6	R. MALLIKARJUNA SETTY	2010-14	Member BOS, NMKRV Autonomous.
7	R. MALLIKARJUNA SETTY	2010-11	Paper setter, 3 rd Sem B.Sc., new syllabus, Bangalore University



Sl. No.	Name of the faculty	Year	Member of panel / Board of studies (BOS)
8	M. SUBRAMANYA BHAT	2013-14	Chairman UG, B.O.E & also member BOS, Bangalore University.
9	M. SUBRAMANYA BHAT	2013-14	Member, BOS in Kristu Jayanthi College, Autonomous,
10	M. SUBRAMANYA BHAT	2013-14	Chief of Squad for B.Ed Nov/Dec 2013 Examinations.
11	S. M. MRUTHUNJAYA SWAMY	2011-14	Member, BOS, Bangalore University, Bangalore
12	S. M. MRUTHUNJAYA SWAMY	2014-15	Chairman UG, B.O.E in Electronics, Bangalore University, Bangalore
13	Dr. H.J. THONTADHARYA	2012-13	Worked as Deputy Coordinator for PG Revaluation Unit MAY-2012 Exams for Bangalore University, Bangalore
14	Dr. H.J. THONTADHARYA	2013	Worked as Assistant Custodian for PG Valuation Unit MAY-2013 Exams for Bangalore University, Bangalore

24.	List of eminent academicians and scientists / visitors to the department	
a.	DR. K.N. Shankara	SATISH DHAWAN PROFESSOR & former Director, ISRO, BANGALORE
b.	Dr.P.Raghottama Rao M.Tech (IIT), Ph.D	formerly Quality Control Engineer, Vikram Sarabhai Space Centre (VSSC), ISRO, Trivandrum
c.	Prof. Sujatha	<i>Vasundara Automation and Engineering services</i>



d.	Prof. Venugopal	Sun Micro systems
e.	Dr. Ananda C.M	Deputy Head, Aerospace Electronics division, National Aeronautical Laboratory, Bangalore
f.	Dr. Balakrishnan	Director, Dept. of Robotics and artificial Intelligence, Indian Institute of Science, Bangalore

25.	Seminars/ Conferences/Workshops organized & the source of funding National International	NIL
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a. Regional Level Conferences/ Workshops Conducted along with source of funding

Title of the Workshop/ Seminar/ Conference conducted	Academic Year	No. of participants attended	Source of funding
II and IV semester B.Sc. syllabus blow up discussion	9 th August 2010	30	BHS higher Education Society
VI semester B.Sc. syllabus blow up discussion	17 th December 2011	25	BHS higher Education Society
Seminar on Verilog systems	6/3/12	75 (27 Lecturers from other colleges and 48 Students)	BHS higher Education Society
PCB fabrication Course (2 days)	10/1/13 and 11/1/ 13	95 (20 Lecturers from other colleges and 75 Students)	BHS higher Education Society
2 days training on project building	2/2/13 and 3/2/ 13	60 (10 Faculty members from other colleges and VI Semester students of the college)	BHS higher Education Society
Practical training in Verilog and use of FPGA	2013-14	40	BHS higher Education Society
Intercollegiate Electronics FEST for students	22 nd March 2014	100 students from 22 colleges	BHS higher Education Society

b. Conferences attended by the faculty

i. International Conferences

Sl. No.	Name of the faculty	Title of the Workshop/ Seminar/ Conference	Date	Organized by (Name of the institution or university)	Title of the paper presented
1	Jyothi. V	International Conference ICCTAC	20 th -21 st February 2014	Kristu Jayanti College of Management and Technology	A Performance Study of Reactive and Hybrid Routing Protocols for various CBR connections
2	H.J. Thontadharya	ICN-2011 Conference	23 rd to 25 th Sept. 2012	REC Bhalaki, Karnataka, India and published in proceedings of ICN-2011, ISBN : 978-81-921740-0-6.	Study of Routing and Scheduling Algorithms in WiMAX Mesh and Multi Hop Networks
3	H.J. Thontadharya	NCAECT-2012 Conference	May 18 th 2012	Kuvempu University and Published in Proceedings of NCAECT-2012.	Study of Handover Threshold and Handover on the QoS Performance of WiMAX
4	H.J. Thontadharya	ICAdC-2012 Conference	4th - 6th July 2012	Dept. of Computer Science & Engg, Information Science & Engg. and Computer Applications, MSRIT, Bangalore,	Effect of Idle mode on Power Saving in Mobile WiMAX Network
5	H.J. Thontadharya	ICEPWCH Conference	29th - 31st July 2010	Dept. of Zoology, Bangalore University, Bangalore	Temperature Programmer for Mashing Apparatus
6	M. Subramanya Bhat	International Conference on Networking - 2011	23 rd -25 th September 2011	REC Bhalaki, Karnataka, India and published in proceedings of ICN-2011, ISBN : 978-81-921740-0-6.	Performance Evaluation of Routing Protocol for IEEE 802.11 using Qualnet Network Simulator



ii. National Conferences

Sl. No	Name of the faculty	Title of the Workshop/ Seminar/ Conference	Date	Organized by	Title of the paper presented
1	R. Mallikarjuna Setty	Knowledge Utsav	28th August 2010	Jain University, Kanakapura, Bangalore.	Microcontroller based sweep oscillator and frequency response display system
2	R. Mallikarjuna Setty	National Conference on Machine Learning	February 1st and 2nd 2014	Kuba Basaveshwara college, Bhalki	
3	R. Mallikarjuna Setty	National Conference on Recent Trends in Electronics and its Applications	14-15th March 2014	Govt. First Grade college, K.R. Puram	
4	R. Mallikarjuna Setty	JNANARJANA 2K14, 6th National Science Conference- Beyond the frontiers in Science & Technology	27-28th March 2014	Jnanarjana 2k14, Oxford FG college	
5	M. Subramanya Bhat	Knowledge Utsav	28th August 2010	Jain University, Kanakapura, Bangalore.	overview of wireless sensor networks and applications
6	M. Subramanya Bhat	Emerging Trends in Biomedical signal processing	26th Feb 2011	RVCE, Bangalore	"Scenario based Performance Evaluation of Reactive and Proactive Routing Protocols in Mobile Adhoc Networks"



Sl. No	Name of the faculty	Title of the Workshop/ Seminar/ Conference	Date	Organized by	Title of the paper presented
7	M. Subramanya Bhat	Emerging Trends in Biomedical signal processing	26th Feb 2011	RVCE, Bangalore	Performance Evaluation of DSR and ZRP Routing Protocol using Qualnet
8	M. Subramanya Bhat	Advanced Computing and Computations	27th -28th April 2012	Dept. of PG Studies	Comparitive Study of AODV,OLSR and ZRP Protocols
9	M. Subramanya Bhat	Advances in Electronics & communication technology NCAE CT-2012)	18th May 2012	Kuvempu University	Real Time Emulation Study of AODV and Improved AODV Protocols
10	M. Subramanya Bhat	National Symposium on Low Power Solutions for Communications	19th -20th April, 2013	Dept. of E & C, RVCE, Bangalore	A Performance Study of AODV and ZRP Protocols for Mobile Adhoc Network (MANET)
11	M. Subramanya Bhat	National Symposium on Low Power Solutions for Communications	19th -20th April, 2013	Dept. of E & C, RVCE, Bangalore	Performance Evaluation Of AODV and LAR with 802.15.4 Standard", Presented in National Symposium on Low Power Solutions for Communications
12	M. Subramanya Bhat	JNANARJANA 2K14, 6th National Scinece Conference-Beyond the frontiers in Science & Technology	27th-28th March 2014	Oxford College Of Science, Bangalore	Performance Evaluation of On-Demand Reactive Routing Protocol with Multiple CBR Connections for IEEE 802.11 and IEEE802.15.4 Standards



Sl. No	Name of the faculty	Title of the Workshop/ Seminar/ Conference	Date	Organized by	Title of the paper presented
13	M. Subramanya Bhat	National Conference on Recent Trends in Electronics and its applications NCRTEA-2014	14th-15th March 2014	GFGC, K.R. Pura, Bangalore,	A Performance Study of Proactive, Reactive and Hybrid Routing Protocols with multiple CBR connections for IEEE802.11 standards
14	S.M. Mruthunjaya Swamy	National Conference on Machine learning	February 1st and 2nd 2014	Kuba Basaveshwara college, Bhalki	
15	S.M. Mruthunjaya Swamy	National Conference on Recent Trends in Electronics and its Applications	14-15th March 2014	Govt. First Grade college, K.R. Puram	
16	S.M. Mruthunjaya Swamy	JNANARJANA 2K14, 6th National Science Conference- Beyond the frontiers in Science & Technology	27-28th March 2014	Oxford FG college	
17	Jyothi. V	National Symposium on Low Power Solutions for Communications	19th -20th April, 2013	Dept. of E & C, RVCE, Bangalore	Comparative Performance Evaluation of Different AdHoc Routing Protocols in IEEE 802.15.4
18	Jyothi. V	National seminar on Advanced Microcontrollers	15th and 16th September 2012	BMS Engineering College, Bangalore	



Sl. No	Name of the faculty	Title of the Workshop/ Seminar/ Conference	Date	Organized by	Title of the paper presented
19	Jyothi. V	JNANARJANA 2K14, 6th National Science Conference- Beyond the frontiers in Science & Technology	27th-28th March 2014	Oxford College Of Science, Bangalore	Performance Evaluation of On-Demand Reactive Routing Protocol with Multiple CBR Connections for IEEE 802.11 and IEEE802.15.4 Standards
20	Jyothi. V	National Conference on Recent Trends in Electronics and its applications NCRTEA-2014	14th-15th March 2014	GFGC, K.R. Pura, Bangalore,	A Performance Study of Proactive, Reactive and Hybrid Routing Protocols with multiple CBR connections for IEEE802.11 standards
21	S. Fareena Begum	National seminar on Advanced Microcontrollers	15th and 16th September 2012	BMS Engineering College, Bangalore	
22	Suchitra N.S	National seminar on Advanced Microcontrollers	15th and 16th September 2012	BMS Engineering College, Bangalore	

iii. State Level and Regional Level Conferences

NIL

26. Student profile programme/ course wise:

Year	Name of the Course / Programme	Applications Received	Selected	Enrolled in I year		TOTAL All Years	Pass Percentage (outgoing students)
				Male	Female		
2010 - 11	B.Sc.	112	112	67	45	240	92.31%
2011 - 12		72	72	41	31	235	89.87%

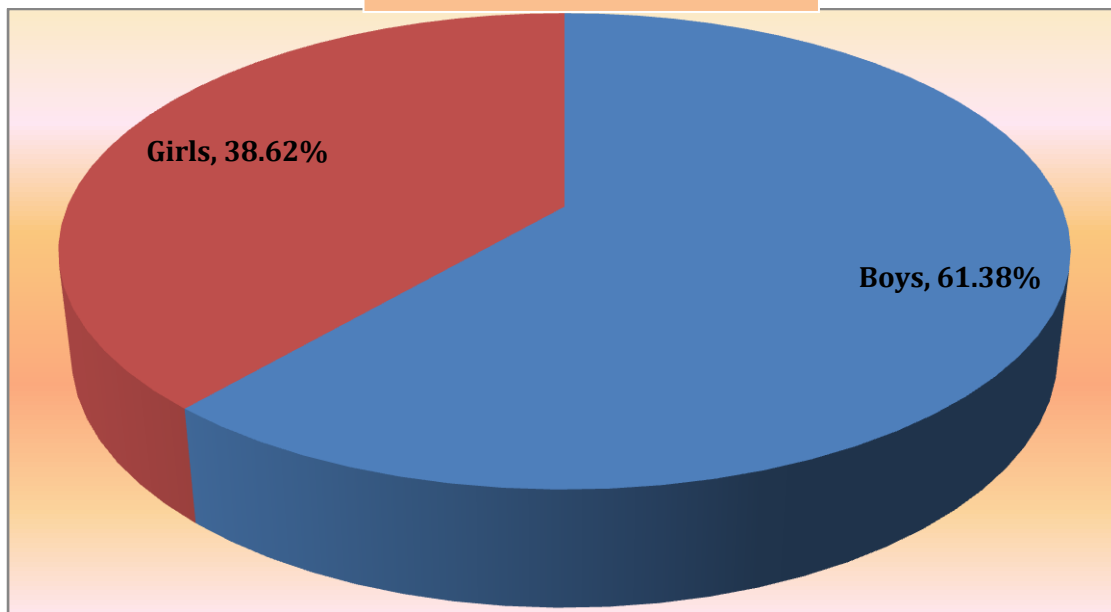


Year	Name of the Course / Programme	Applications Received	Selected	Enrolled in I year		TOTAL All Years	Pass Percentage (outgoing students)
				Male	Female		
2012 - 13		65	65	49	16	190	78.21%
2013 - 14		103	103	63	40	225	79.31%
2014 - 15		80	80	45	35	246	

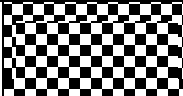
Gender Profile of students

Academic Year	Boys	Girls	Total
2011 - 12	126	109	235
2012 - 13	122	68	190
2013 - 14	146	79	225
2014 - 15	156	90	246
Average Percentage	61.38%	38.62%	

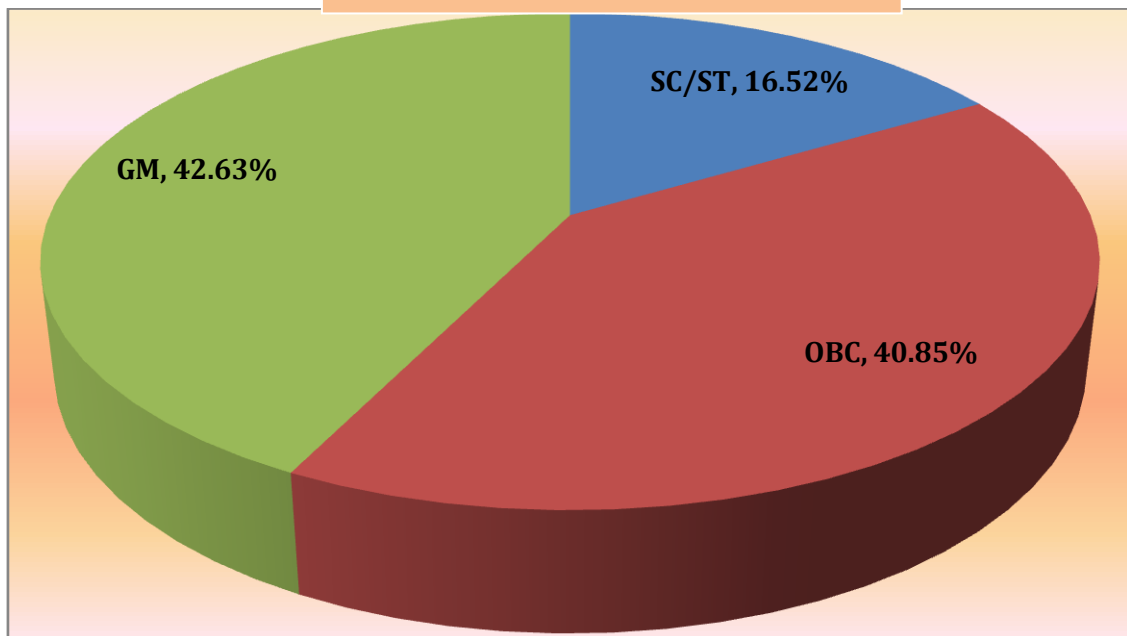
Gender Profile of Students



Socio - Economic Profile of Students

Academic Year	SC/ST	OBC	GM	Total
2011 - 12	35	71	129	235
2012 - 13	32	70	88	190
2013 - 14	39	110	76	225
2014 - 15	42	115	89	246
Average Percentage	16.52%	40.85%	42.63%	

Socio - Economic Profile of Students



27. Diversity of students:

Name of the course	% of students from the same state	% of students from other states	% of students from abroad
B. Sc.	99%	1%	Nil
BCA	99%	1%	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

No Data Available



29. Student progression

Student progression	Against % enrolled
UG to PG	20%
PG to M.Phil.	NA
PG to Ph.D.	NA
Ph.D. to Post-Doctoral	NA
Employed	10%
• Campus selection	
• Other than campus recruitment	60%
Entrepreneurship/Self-employment	10 %

30.	Details of Infrastructural facilities	
a.	LIBRARY	
	Books Main Library	1781 Books
	Department Library	150 Books
b.	Internet facilities for Staff & Students	Available
c.	Class rooms with ICT facility	05 Class rooms and Laboratory
d.	Laboratories	02
	Area of the Laboratories	2400 sq.ft.

Resources to Catalyze the Teaching learning Process

• No. of Desktop Computers	:	14
• Printers	:	03
• Scanners/Copiers	:	02
• No. of Laptops	:	01
• Internet connection	:	Yes
• LCD Projectors	:	02
• OHP	:	01



- Digital storage CRO : 20
- Educational software CDs : 03
- Print Scan copier : 01
- PIC programmers : 02
- UPS (offline) : 3.5 kVA

31.	Number of students receiving financial assistance from college, university, Government or other agencies	Data furnished under student support services
32.	Details of Student Enrichment Programmes	

1. VIDYUNMANA VIJAYA

An intercollegiate fest conducted amongst students of various colleges of Bangalore. Nearly 10 events are conducted annually and a Rolling shield is instituted by the college to the winners of the maximum number of events. The Rolling shield have been won by the following colleges in different years.

Year	Name of the College which won the Rolling shield	No. of colleges and participants
2 nd March 2013	NMKRV College	23 colleges and 156 participants
22 nd March 2014	SBM Jain College	25 colleges and 145 participants

2. **Practical training in Verilog and use of FPGA (Field Programmable Gate Array)** on Monday, 18-11-2013. 40 Participants attended the program.
3. PCB Fabrication Course for two days on 10th Jan 2013 and 11th Jan 2013
4. **Practical training to VI semester** students in project works based on the PIC microcontrollers on 2nd Feb 2013 and 3rd Feb 2013
5. **1 day program on computer assembly** and installation by **Sri Ganesh, Microcon Electronics** (October 16th 2010)
6. Invited Lecture on **“Future Possibilities of Space Technology applications”** - by **DR. K.N. SHANKARA, SATISH DHAWAN PROFESSOR & former Director, ISRO, BANGALORE** (25th August 2010)
7. Invited Lecture on **Materials for progress** -by **Dr.P.Raghottama Rao**, M. Tech (IIT), PhD, formerly served as Quality Control Engineer, Vikram Sarabhai Space Centre (VSSC), ISRO, Trivandrum (6th August 2011)

8. Invited lecture on “**Electronics in Automation**” - by **Prof. Sujatha, Vasundara Automation and Engineering services** (18th August 2012)
9. Invited lecture on “**Hidden aspects of Digital designing through Verilog HDL**” by **Prof. Venugopal**, Sun Micro systems(8th March 2012)
10. Invited lecture on “**Aerospace Electronics**” by **Dr. Ananda C.M**, Deputy Head, Aerospace Electronics division, NAL, Bangalore (28th August 2013)
11. Invited lecture on “**PCB designing and Fabrication**” by **Prof. Sanjeev, Senior Faculty**, Vijaya College, Jayanagar. Corresponding hands on training was given by Mr. Palani, NTTF (22-09-2012)
12. Every year from 2009, inauguration of electronics club Vidyunmana Vijaya would be always followed by a **guest lecture** from an eminent scientist / industrialist.

33. Teaching methods adopted to improve student learning

- Chalk and Talk method
- ICT in teaching techniques
- Seminars by students in individual subjects
- Mini projects and major projects
- Skill based short term programs
- Remedial classes academically weak learners
- Bridge courses at the beginning of every semester .
- Audio-visual demonstration of topics and experiments for theory and practical classes

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

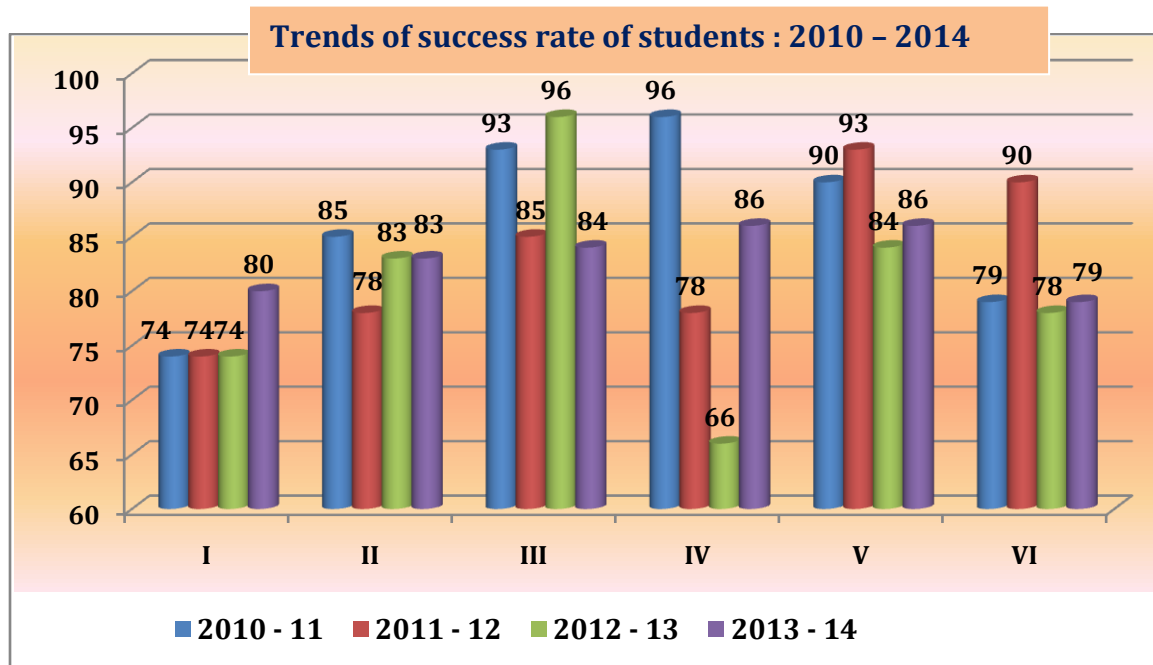
- Involvement in NSS activities and Blood donation Camps
- Participation in environment awareness programmes
- E-waste Management : Students of Electronics dept. attended an awareness programme conducted by NGO-**True light International organisation on 26th July 2014.**

E-waste generated by all the departments has been handed over to the e-waste managing centre set up by B.H.S. higher education society.

- Participation in National festivals like Independence day and Republic day

I. Trends of success rate of electronics students : 2010 - 2014

Sem	2010 - 11	2011 - 12	2012 - 13	2013 - 14
I	74	74	74	80
II	85	78	83	83
III	93	85	96	84
IV	96	78	66	86
V	90	93	84	86
VI	79	90	78	79



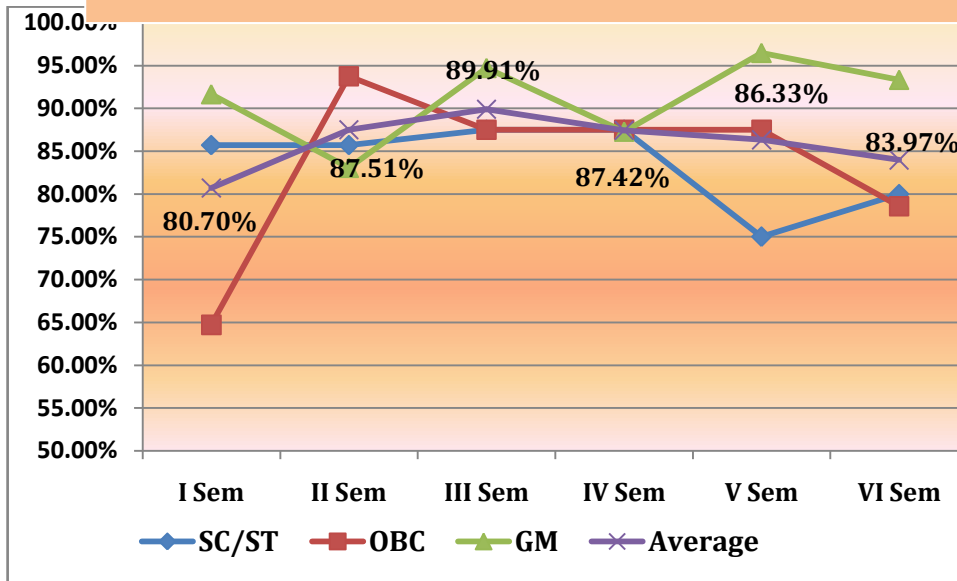
II. Cohort Performance of students : 2010 - 2014

Batch - I : 2009 - 12

Category	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem
SC/ST	85.71%	85.71%	87.50%	87.50%	75.00%	80.00%
OBC	64.71%	93.75%	87.50%	87.50%	87.50%	78.57%
GM	91.67%	83.05%	94.74%	87.27%	96.49%	93.33%
Average	80.70%	87.51%	89.91%	87.42%	86.33%	83.97%



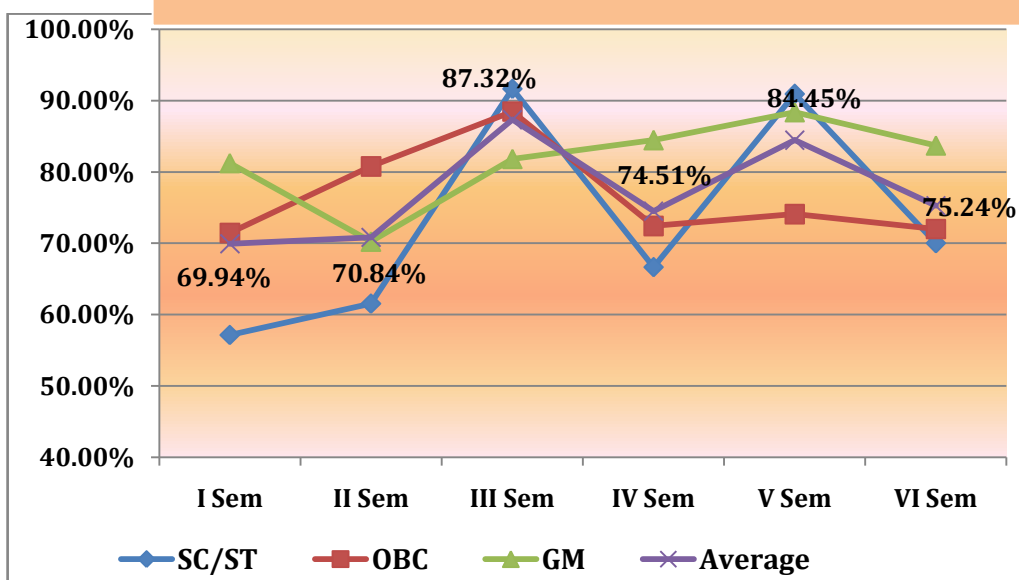
Cohort Performance of Batch - I students : 2009 - 2012



Batch - II : 2010 - 13

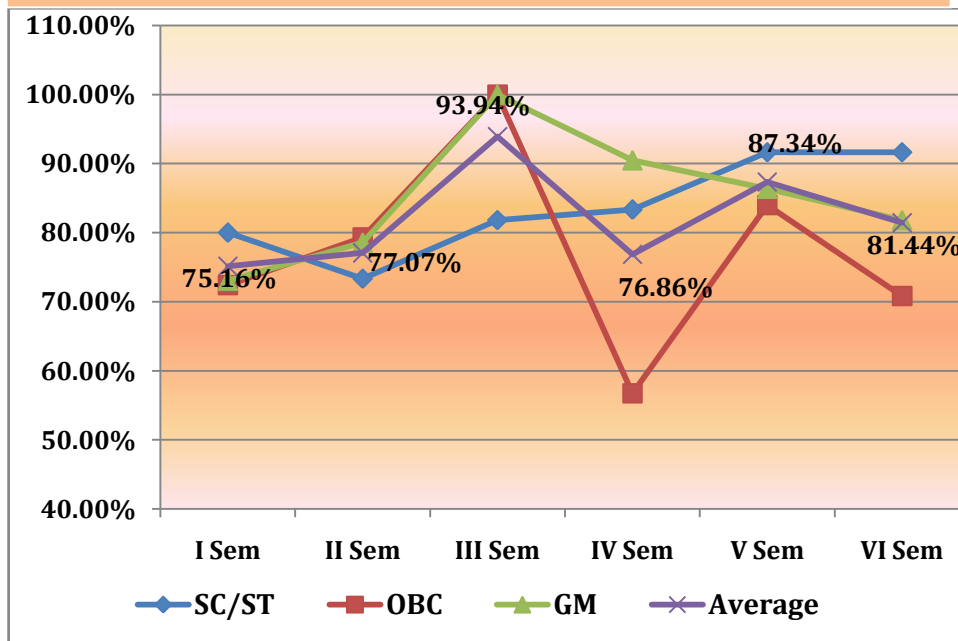
Category	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem
SC/ST	57.14%	61.54%	91.67%	66.67%	90.91%	70.00%
OBC	71.43%	80.77%	88.46%	72.41%	74.07%	72.00%
GM	81.25%	70.21%	81.82%	84.44%	88.37%	83.72%
Average	69.94%	70.84%	87.32%	74.51%	84.45%	75.24%

Cohort Performance of Batch - II students : 2010 - 2013



Batch - III : 2011 - 14

Category	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem
SC/ST	80.00%	73.33%	81.82%	83.33%	91.67%	91.67%
OBC	72.41%	79.31%	100.00%	56.76%	84.00%	70.83%
GM	73.08%	78.57%	100.00%	90.48%	86.36%	81.82%
Average	75.16%	77.07%	93.94%	76.86%	87.34%	81.44%

Cohort Performance of Batch - III students : 2011 - 2014**C.O.C IN ELECTRONIC PRODUCT DESIGN AND APPLICATIONS**

Career Oriented Course in electronics product design and applications to add value to the graduating electronics students from the college so that they can find placements in electronics industries. The curriculum was designed based on the inputs received from the technical and professional support from various technical and industrial organizations. The course was supported by the funds received from UGC. The course was sanctioned in April 2010 with one time seed money of Rs. 10 Lakhs. The course is now offered at Certificate, Diploma and Advanced Diploma level. An M.O.U with VASUNDARA AUTOMATION AND ENGINEERING SERVICES PVT.LTD (formerly known as Silicon Smith India Pvt. Ltd) was made to train the students of the course. During the academic year 2014 - 15, we have

entered into a tie up with a vocational training center KGTI (KARNATAKA GERMAN TECHNICAL TRAINING INSTITUTE), a Govt. of Karnataka funded organization to train as well as subsequently increase the opportunities for better technical jobs. In addition to the regular Electronic topics, soft skills, personality development, communication English skills, group discussion concepts have been introduced to students in all the academic years.

Certificate course was started during the academic year 2010 – 11, Diploma level during 2011 – 12 and Advanced Diploma level in 2012 – 13.

Student Enrolment details of Career oriented Add on Course 'Electronic Product Design and applications' sponsored by UGC:

Year	Certificate Level		Diploma level		Advanced Diploma level	
	Attended	Passed	Attended	Passed	Attended	Passed
2010-11	27	27	-	-	-	-
2011-12	27	27	11	11	-	-
2012-13	24	24	24	24	10	10
2013-14	28	28	17	17	16	16
2014 – 15	22	-	15	-	15	-

35. SWOC analysis and developmental plans:

Strengths

- Good academic ambience.
- Excellent Laboratory facility.
- Qualified and experienced Faculty.
- Faculty has been recognised for their Dedication and Commitment.
- Low tuition fee when compared to any Aided and Unaided neighboring colleges.
- Use of ICT technology.

- UGC sponsored Career oriented Add on courses.
- MOU with *several training and industrial organizations*, which provides students to gain on field knowledge and industry exposure.
- Support by providing special assistance to slow learners and students admitted late.
- Expertise in designing new experiments and will be shared with other colleges too.
- Student Research Projects under SPICE program of VGST, Govt. of Karnataka.
- Vidyunmana Vijaya - Electronics Club, a Platform by the students for enriching their knowledge.
- Alumni support in conducting various intercollegiate competitions through Vidyunmana Vijaya.
- Exclusive Lab Technician for fabrication and designing and supportive for student projects and minor repairs of the Electronic Equipment.
- All the attenders are skilled for circuit soldering and fabrication.

Weaknesses

- Syllabus does not match with Industry requirement due to rapidly changing and innovative requirement of the Industries
- Limited number of add on courses.
- Limited facilities for Research.
- Complex and lengthy time consuming procedures in the system for organising and conducting Add-on courses, workshops, Seminars etc.,
- Lesser student support programs in practical orientation.

Opportunities

- Introducing more number of Career Oriented Add-on courses as per Industry requirements.
- Providing more consultancy services.
- Organising more number of Regional, State level and National Level seminars and workshops on Recent trends like **PLA(Programmable Logic designing)**
- Attending Refresher courses to cope with the new trends in the field.
- Initiate major research projects
- Starting of finishing school.
- e – learning materials to be developed
- Arranging visits to Industries and Research Centers.
- Department level Bridge courses.
- Interdepartmental activities to help students and teachers to acquaint with latest academic and technologies like **'C for all'**

Challenges

- Limited job opportunities for electronics graduates from B.Sc. stream.
- Training students to get jobs in core electronics industries
- Attraction of students into B.Sc. electronics due to wide availability of seats in professional colleges

Plans to reinforce the academic and physical infrastructure for achieving excellence in Education:

1. Developing a state of art **Simulation Laboratory, a Microcontroller Laboratory** in order to train the students and conduct activities in frontier areas like Embedded Systems, Verilog, VHDL, Wi-fi and Wi-Max, Digital Signal Processing and VLSI Design. Using this facility, our department will be able to **under take need based research and Design on PSOC based systems under Minor /Major research Projects and also on Wireless Sensor Networks. PSOCs** can be designed for multitask activity like Electronic measurement, sensing, mechanising etc.,
2. Conducting a **National Level Workshop** for college teachers in the latest trends in the field of Applied Electronics. To Design the Embedded Systems using the expertise of Scientists, Technocrats and Professors of premier institutes like IISc, IIT, REC, DRDO, ISRO, RRI and other

University and industry to enhance the knowledge of the academic community.

3. **Conducting a Programme for about 30 sessions during weekends exclusively for senior faculty of various undergraduate colleges teaching physical sciences to learn C language and Embedded C language with hands on training and to enable them to cope with the present day scenario.**
4. Applying for research Projects from external agencies.
5. Arranging monthly seminars and guest lectures for the students.
6. Developing interdepartmental collaboration.
7. Procuring E-journals and E-books

Best Practices

- ICT based teaching – learning is adopted.
- Training the students as per industry requirement through not only the regular classes of university syllabi, but also through the Add-on courses.
- Individual attention in the practical classes.
- Student Seminars regularly held.
- Projects for VI semester students.
- Projects and training the students to participate in various intercollegiate competitions.
- Academic Planner, Study material preparation and question paper solving.
- Encouraging and arranging the students to visit various Electronic Equipment manufacturers to complete projects.
- Organising the staff Training programs
- Student forum to enable the students to actively participate in various academic related activities.
- Students News letter
- Initiating student research activities.
