

**ANNUAL REPORT  
FOR THE  
ACADEMIC YEAR 2012-13**



J.C. Bose Block



Ramanujan Block



Dr. Sarvepally Radhakrishnan  
Learning Resource Centre



C.V. Raman Block



Visvesvaraya Block



**Vasavi College of Engineering**

(Sponsored by Vasavi Academy of Education)

(Affiliated to Osmania University & approved by AICTE)

**Ibrahimbagh, Hyderabad – 500 031**

**June, 2014**

## **VASAVI ACADEMY OF EDUCATION**

### GOVERNING BODY MEMBERS

Sri P. Ramamohan Rao	:	President
Prof. T.V. Subba Rao	:	Vice-President
Sri M. Krishnamurty	:	Secretary
Sri K. Vasudeva Gupta	:	Joint-Secretary
Sri P.V. Ratnam	:	Treasurer
Sri P. Balaji	:	Member
Sri K.V. Rangaiah	:	Member
Sri K. Ashok Kumar	:	Member
Smt. P. Indrani	:	Member
Sri Gouri Prasad	:	Member
Sri V.M. Parthasarathi	:	Member
Sri Lagisetty Subbagurumurthi	:	Member
Prof. V. Srinivasulu	:	Special Invitee

## VASAVI COLLEGE OF ENGINEERING

### BOARD OF GOVERNORS

Prof. Mohammad Suleman Siddiqi (Former Vice-Chancellor, OU)	:	Chairman
Sri P. Ramamohan Rao President Vasavi Academy of Education	:	Member
Prof. T.V. Subba Rao, Vice-President Vasavi Academy of Education	:	Member
Sri M. Krishna Murthy Secretary, Vasavi Academy of Education	:	Member
Sri P.V. Ratnam Treasurer Vasavi Academy of Education	:	Member
Sri P. Balaji Member Vasavi Academy of Education	:	Member
Dr. K. Jaya Sankar Professor & HoD, ECE Vasavi College of Engineering	:	Member
Dr. N. Vasantha Professor & HoD, I.T. Vasavi College of Engineering	:	Member
Sri Bommidala Sri Krishna Murthy Managing Director M/s. Bommidala International Pvt. Ltd., 5 <sup>th</sup> Lane, Chandramoulinagar <u>GUNTUR – 522 007</u>	:	Member
Sri U.V.S.N. Murthy Joint Director O/o. the Commissioner of Technical Education	:	Member
Prof. P. Yadagiri Swamy Dean, College Development Council Osmania University	:	Member
Regional Officer, South Central Regional Office, AICTE	:	Member
Dr. I.V. Rao Principal Vasavi College of Engineering	:	Member-Secretary

**VASAVI COLLEGE OF ENGINEERING**  
IBRAHIMBAGH, HYDERABAD – 500 031

ANNUAL REPORT FOR THE ACADEMIC YEAR 2012-13  
SUBMITTED TO THE MEMBERS OF BoG

I. **GOVERNANCE:**

The Governing Body of Vasavi Academy of Education, Managing Committee of the Institution constituted as per the bye-laws of the Academy and the Board of Governors as per norms of TEQIP-II are the main constituents responsible for the governance of the institution. In addition, committees listed hereunder have been constituted by the Institution for effective governance with a view to enhance academic excellence while meeting the expectations of all the stakeholders including industry:

- **Board of Governors**
- **Academic Council**
- **Board of Studies**
- **Academic Quality Assurance Committee**
- **Finance Committee**
- **Building Works Committee**
- **Purchase Committee**
- **Disciplinary Committee**
- **Institution Development Committee**
- **Students Affairs Committee**
- **Library Committee**
- **Grievance Redressal Committee**
- **Anti Sexual Harassment Committee**
- **Canteen Committee**
- **Anti-Ragging Committee**
- **Co-Curricular Activities Committee**
- **Ethics and Values Committee**
- **Alumni Committee**
- **Industry-Institute Interaction Committee**
- **Peer Learning Groups Committee**
- **R & D and Consultancy Cell**
- **Professional Bodies Committee**

- **Career Guidance Cell**

**Periodicity of the meetings:**

The Board of Governors met twice during the year as per the details shown below;

<b>Date of meeting</b>	<b>Total No. of members</b>	<b>No. of members present</b>	<b>% attendance</b>
<b>03.03.2012</b>	<b>13</b>	<b>09</b>	<b>70</b>
<b>15.09.2012</b>	<b>13</b>	<b>10</b>	<b>76</b>

All the remaining committees except Academic Council have met at least once in the academic year (2012-13) or need-based and deliberated upon the relevant activities. As far as the Academic Council is concerned, the Council met once in a month (mostly 1<sup>st</sup> Saturday) and also as and when required.

II. **ACADEMIC PERFORMANCE:**

- **Admissions into I-Year Courses:**

The college has been attracting best quality of students who secured good ranks in state level Common Entrance Examinations (CETS). Almost 70% of seats in all the programmes are filled from the top 10% of EAMCET (Engineering Agriculture and Medical Common Entrance Test) qualified students.

- Undergraduate Programmes:

Course-wise number of students admitted between ranks 1 and 10,000 during the academic year 2012-13 is as follows:

Course	Intake	Rank		No. of students (Below 10,000 rank)
		Opening	Closing	
B.E – Civil	60	3053	105377	20
B.E – EEE	60	1433	29078	27
B.E – ECE	120	1254	31513	77
B.E – Mech	120	1566	53222	56
B.E – CSE	120	1002	33023	72
B.E – IT	120	2703	81446	27

○ Postgraduate Programmes:

The data with regard to course-wise cutoff/last candidate admitted (through GATE/PGECET) into PG courses during the academic year 2012-13 is furnished below:

Course	Intake	Rank		No. of students admitted through	
		GATE	PGECET	GATE	PGECET
M.E – ECE (ES & VLSID)	18	11494	978	09	02
M.E – ECE (CE & SP)	18	37272	128	09	02
M.E – Mech (ADM)	18	13790	114	01	08
M.Tech – CSE (CSE)	18	44241	10240	11	01
MCA	60	2446 (I-CET)	101705 (I-CET)	---	---

● **Students performance in 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> Year B.E. (2012-13):**

Our students have performed well in the University Examinations. Following is the data with regard to student performance in the examinations:

**Undergraduate Courses (B.E):**

S No.	Branch	I-Year		II-Year		III-Year		IV-Year		
		No. Regd.	No. passed	% Pass						
1	Civil	58	40	79	49	73	50	68	63	92.65
2	EEE	60	46	72	57	73	52	65	62	95.59
3	ECE	120	108	144	120	143	120	130	127	96.92
4	IT	117	80	71	58	72	56	64	54	84.38
5	Mech.	120	97	143	122	142	113	133	128	95.38
6	CSE	120	101	144	115	137	114	129	125	97.1

**Postgraduate Courses (M.E/M.Tech):**

Course	Distinction%	1 <sup>st</sup> Class
ME - Mech (Advanced Design & Manufacturing)	61.11	38.89
ME – ECE (Embedded Systems & VLSI Design)	69.23	25.39
ME – ECE (Communication Engg. & Signal Processing)	36.30	87.50
M.Tech – CSE	16.66	61.11

*Note:*

*A Postgraduate programme in EEE with specialization in Power Systems & Power Electronics has been started with an intake of 24 in the academic year 2012-13. All the seats have been filled.*

- **University Ranks:**

Our students have been consistently achieving good academic results and ranks in the University Examinations. The overall pass percentage was 93.67%, total number of university ranks is 25.

Results and university ranks in the year 2013 are as follows:

<b>Department</b>	<b>Pass %</b>	<b>University Ranks</b>
Civil Engineering	92.65	<b>5</b> (1,4,5,9,10)
Electrical & Electronics Engineering	95.59	<b>4</b> (3,5,7,8)
Electronics & Communication Engineering	96.92	<b>1</b> (9)
Mechanical Engineering	95.38	<b>4</b> (3,4,7,10)
Computer Science & Engineering	97.1	<b>5</b> (3,4,5,8,9)
Information Technology	84.38	<b>6</b> (3,5,6,8,9,10)
<b>Overall</b>	<b>93.67</b>	
<b>MCA</b>	<b>98.80</b>	

- Bench-Marking:

The academic performance of the institute has been compared with one of the institutes nearby for the purpose of bench-marking in terms of University Ranks.

The analysis of the University Ranks is furnished below:

S. No.	Branch	VASAVI (VCE)	Institute nearby *
1	Civil Engineering	<b>5</b> (1,4,5,9,10)	1 (6)
2	Electrical & Electronics Engineering	<b>4</b> (3,5,7,8)	2 (2,4)
3	Electronics & Communication Engg.	<b>1</b> (9)	6 (1,2,4,7,8,9)
4	Mechanical Engineering	<b>4</b> (3,4,7,10)	4 (1,2,3,8)
5	Computer Science & Engineering	<b>5</b> (3,4,5,8,9)	1 (6)
6	Information Technology	<b>6</b> (3,5,6,8,9,10)	2 (2,4)
	Total	<b>25</b>	<b>16</b>

*\*Source: Communication (Merit List) received from the Controller of Examinations, Osmania University dated 11<sup>th</sup> November, 2013.*

### III. **EXTRA-CURRICULAR ACTIVITIES:**

Since the students' talent in extra-curricular activities is also one of the parameters while recruiting them by the employers, various clubs have been formed where students take active part.

- Abhinay --- *to encourage acting talents*
- Kriti --- *to encourage creative talents of students in arts and painting*
- Speakeasy --- *to improve communication skills*
- ECO Club --- *to undertake environmental awareness programmes*
- Vasavi-talkies --- *to encourage innovative talents of students in short film making and photography based on themes of community interest*
- Music --- *to encourage talent of students in music*

The College management encourages our students to participate in games & sports with sponsorship, attendance etc., and wishes them to bring many more laurels to the College.

The college has been actively encouraging students to participate in various sports & games as it believes that there should be a holistic development of the students. The Department of Physical Education has conducted sports and games for the staff and students in events like Cricket, Football, Volleyball, Throw Ball, and individual events like Tennikoit, Table tennis, Carroms, Shuttle, Chess, and Athletics.

Our students have participated in various games and sports organized by JNTU, Osmania University, and other colleges.

Some of the remarkable achievers of our College, during the academic 2012-13 are:

- Mr. V. Sai Srujan Reddy, 2/4 Civil won 3 gold medals in Swimming Competition in OU Inter-Collegiate Tournaments held during September, 2012 he also stood 4<sup>th</sup> place at all India Level.

- Mr. M. Sai Abhinav, 3/4 I.T. in Rifle Shooting and won 4 medals and he was selected for All India Inter University Tournament, conducted by Gurunanak University at Amritsar.
  - Won Gold Medal at Jr. Category
  - Won Broze Medal at Sr. Category
  - Won Silver Medal at Jr. Category
  - Won Gold Medal in Inter-Collegiate at O.U.
- Our College Football team has been declared as 'Runner-up' in National Inter Engineering Colleges Sports Meet-2013 organized by CBIT.

Our students actively participated in the Inter-College/Inter-University tournaments.

- Our Basketball team has been declared as 'Runner-up' in A.P. Sports Meet-2013 organized by Samskruti College of Engineering, Ghatkesar.
- Mr. B. Vikram Adhitya Reddy, 4/4 Civil was selected as Captain for Osmania University Netball Team and participated in All India Inter-University Tournaments at Chattisgarh for the last three years. He was also selected as a player for 29<sup>th</sup> Senior Nationals for the said tournament at Haridwar, Uttarkhand State.

#### IV. **FACULTY PERFORMANCE:**

- **Publications:**

A total No. of 29 papers were published/presented in various national/ international seminars/conferences/reputed journals.

*List of publications are given in **Annexure-A**.*

- **Workshops/Conferences attended:**

As a part of continuous improvement and to cope up with the present need, the college deutes faculty members to Seminars/Conferences/Workshops organized by reputed institutions/establishments under TEQIP-II. The registration fee, to & fro travel expenses, boarding & lodging charges are borne by the college.

223 faculty members have attended various events during the year 2012-13. The department-wise break-up is shown below:

S No.	Department	No. of faculty attended
1	Civil Engineering	36
2	Mechanical Engineering	36
3	Electronics & Communication Engineering	54
4	Computer Science & Engineering	32
5	Electrical & Electronics Engineering	07
6	Information Technology	33
7	Master of Computer Applications	13
8	Chemistry	06
9	Humanities & Social Sciences	06

- **Workshops/Conferences conducted:**

During the year 2012-13, the college has organized a total No. of 69 seminars/workshops/guest lectures/personality development programmes/staff development programmes by inviting eminent persons/organizations from academia/industry. The Department-wise break-up is shown below:

S No.	Department	No. of seminars/workshops/guest lectures/PDP/SDP organized during 2012-13
1	Civil Engineering	14
2	Mechanical Engineering	04
3	Electronics & Communication Engineering	08
4	Computer Science & Engineering	21
5	Electrical & Electronics Engineering	07
6	Information Technology	12
7	Master of Computer Applications	02
8	Chemistry	01

- **Qualification upgradation:**

Faculty are encouraged to pursue higher studies (either full-time/part-time) and are given financial support.

- Faculty pursuing M.E/M.Tech are entitled for reimbursement of tuition fee upto Rs.5,000/- per annum and given paid leave and/or reduction of workload.
- Faculty pursuing Ph.D degree are eligible for reimbursement of tuition fee upto Rs.10,000/- per annum towards contingency, thesis preparation, Academic Leave (upto 6 months) and reduction of workload.

The list of faculty pursuing higher studies department-wise is given below:

S. No.	Name (Mr./Ms.)	Designation	Department	Pursuing
1	M.V.S.S. Sastri	Asso. Prof.	Civil	Ph.D
2	K. Ram Mohan Rao	Asso. Prof.	CSE	Ph.D
3	M. Sunitha Reddy	Asst. Prof.	CSE	Ph.D
4	V. Sireesha	Asst. Prof.	CSE	Ph.D
5	K. Jairam Naik	Asst. Prof.	CSE	Ph.D
6	G. Hanumantha Rao	Asst. Prof.	CSE	Ph.D
7	R. Sateesh Kumar	Asst. Prof.	CSE	Ph.D
8	M.S.V. Sashi Kumar	Asst. Prof.	CSE	Ph.D
9	P. Jhansi Rani	Asst. Prof.	IT	Ph.D
10	K. Shyam Sunder Reddy	Asst. Prof.	IT	Ph.D
11	G. Venkateswarlu	Asso. Prof.	ECE	Ph.D
12	A. Srilakshmi	Asso. Prof.	ECE	Ph.D
13	R. Leelavathi	Asst. Prof.	ECE	Ph.D
14	Vibha D. Kulkarni	Asst. Prof.	ECE	Ph.D
15	K. Deepthi	Asst. Prof.	ECE	Ph.D
16	N. Abid Ali Khan	Asst. Prof.	ECE	Ph.D
17	K. Veladri	Asso. Prof.	Mech.	Ph.D
18	M. Sudhakar	Asst. Prof.	Mech.	Ph.D
19	PVS Subhashini	Asst. Prof.	Mech.	Ph.D
20	J. Anjaneyulu	Asst. Prof.	Mech.	Ph.D
21	P.V. Gopala Krishna	Asst. Prof.	Mech.	Ph.D
22	S. Venkataiah	Asst.Prof.	Mech.	Ph.D
23	G. Sandhya Rani	Asst. Prof.	EEE	Ph.D
24	G. Pranava	Asst. Prof.	EEE	Ph.D
25	M. Sreenivasulu	Asst. Prof.	EEE	Ph.D
26	Ch. Gouri Shankar	Asso. Prof.	Chem.	Ph.D
27	P. Sukanya	Asst. Prof.	Chem.	Ph.D
28	T. Sudhakara Rao	Asso. Prof.	Maths	Ph.D
29	R. Hari Kishore	Asst. Prof.	Maths	Ph.D
30	V. Sri Ramani	Asst. Prof.	Maths	Ph.D
31	Ch. Naga Anuradha	Asst. Prof.	Maths	Ph.D
32	Jacqueline Amaral	Asst. Prof.	H & SS	Ph.D
33	T. Sunand Emmanuel	Asst. Prof.	H & SS	Ph.D
34	B. Sheela Rani Simon	Asst. Prof.	H & SS	Ph.D
1	M. Srilatha	Asst. Prof.	CSE	M.Tech
2	Y. Anitha	Asst. Prof.	CSE	M.Tech
3	B. Shyamala	Asst. Prof.	CSE	M.Tech
4	T. Balaji	Asst. Prof.	CSE	M.Tech
5	P. Geeta	Asst. Prof.	CSE	M.Tech
6	S. Rajyalakshmi	Asst. Prof.	I.T	M.Tech
7	Ch. Pavani	Asst. Prof.	I.T	M.Tech
8	V. Krishna Mohan	Asst. Prof.	ECE	M.Tech

V. **PLACEMENTS:**

The Department of HR organizes pre-placement training programmes every year to the students for better placements. During the month of July, the Department of HR, in association with M/s. Globarena Technologies, had organized a training programme for BE students of 2013 batch from 20.06.2012 to 13.07.2012 and also in the month of March, 2013.

Based on the data furnished below in respect of campus placements, it may be observed that almost 80% of the eligible students got placements in reputed companies that have visited the campus for recruitments. The Tier-I organization viz., Microsoft has offered our students a pay package of 10.70 Lakhs/pa. Other major companies that selected our students during the year 2012-13 include Infosys Technologies Limited, Cognizant and Wipro.

A total no. of **476** students got placement from 2012-2013 batch, securing 846 offers.

No. of students with (1) one offer	240	×	1	=	240
No. of students with (2) two offers	142	×	2	=	284
No. of students with (3) three offers	60	×	3	=	180
No. of students with (4) four offers	29	×	4	=	116
No. of students with (5) five offers	4	×	5	=	20
No. of students with (6) six offers	1	×	6	=	6
	<u>476</u>				<u>846</u>

A total of 46 companies have visited during the year 2012-13.

Other companies that visited our campus this year are Pega Systems, S & P Capital IQ, Mahindra & Mahindra Limited, Teradata Corporation, Deloitte Consulting (India) Private Limited, NetCracker Technology, FactSet, ADP Private Limited, Tata Advanced Systems Limited, MindTree, Capgemini India, etc..

VI. **TEQIP:**

The Institute is one of the 25 private institutes all over the country to have been selected for Technical Education Quality Improvement Programme (TEQIP) Phase-II, sub-component 1.1, with a funding of **Rs.4.00 crores**. The MoU has been signed in September, 2011 and the project completion date is **31<sup>st</sup> December, 2014**. The objective of the programme is 'Strengthening Institutions to improve learning outcomes and employability of graduates'. The total expenditure incurred during the year 2012-13 is Rs.31.73 lakhs towards assistantships, faculty & staff development, enhanced interaction with industry, implementation of institutional Reforms etc.

## VII. **INDUSTRY-INSTITUTE INTERACTION:**

Interaction with industry is prime requirement of the institution and the institution continues to work with them in the form of MoUs, guest lectures, Project work for students and on some committees of the institute such as Advisory Committee etc.

The College has signed MoUs with the following industries:

- Microsoft Corporation (India) Pvt. Ltd.
- Progress Software Development Pvt Ltd
- Infosys Technologies
- EMC<sup>2</sup> Corporation
- Computer Science Corporation (CSC)
- UberGrad Inc (SMS Country)
- Merxius Software Private Limited
- Computer Associates
- Siemens PLM Software
- Geomap Solutions Private Limited

## VIII. **AWARDS:**

To encourage merit and to develop competition among the students, the College has instituted awards as detailed below:

- **Best Academic Performance Awards** are given to top 3 students of each section, for all the courses, based on their performance in the University Examination in the preceding year. (Details of student awardees are furnished in **Annexure-B**).
- **Best Project Awards** are given for final year students to encourage innovativeness for the projects relevant to their respective fields of engineering. A total No. of 19 students have received the 1<sup>st</sup> Best and 16 students have received the 2<sup>nd</sup> Best Award. (Details of student awardees are furnished in **Annexure-C**).
- **Best Attendance Awards** are given to all those students who have secured 100%, 99% and 98% of attendance in the preceding academic year. (Details of student awardees are furnished in **Annexure-D**).
- In token of their all-round performance, **Young Leader Awards** are given to the 4<sup>th</sup> year students

IX. **GOLD MEDALS:**

Vasavi Academy of Education has instituted Gold Medals to the toppers of each discipline based on their cumulative performance (from 1st year to final year) in the University Examinations. In addition, Gold Medals have also been instituted by industry partners, alumni, parents and individuals and the total No. of Gold Medals are 16. Details of student awardees are furnished in **Annexure-E**).

X. **MERIT-cum-MEANS SCHOLARSHIPS:**

In addition to the above initiatives, the Management of Vasavi College of Engineering is providing Merit-cum-Means Scholarships to the needy students for their academic improvement. An amount of Rs.10.00 lakhs has been disbursed to the 226 (from 1<sup>st</sup> year to 4<sup>th</sup> year B.E. students) needy students under this Scheme.

XI. **ENTREPRENEURSHIP DEVELOPMENT CELL:**

The College is an Institutional Member of NEN and TiE who are globally known organizations for entrepreneurial leadership programmes.

The Entrepreneurship Development Cell of the College is functional since 2002. The ED Cell organizes programmes to motivate and guide the students for entrepreneurship development and equips them with information and opportunities. Following is the list of events:

- B-Plan Workshop, Red or Green
- Avatar Takes, E-Bray, Desi Designs, Talk Blast,
- Informal Events,
- Informal Events Lucky 7, Bottoms up T-shirt Painting
- Hand painting Taboo, Lan gamming Minute to win it
- Football free style freak Grab it, Pic-story Rubicks, Dumbcharedes Hop throw,
- TT@30 Word builder
- Bowl out the tins Rubix Cube, Hand Painting Shape The Card

XII. **INNOVATION CENTRE:**

The College has established **Innovation Center** in the year 2010-11 for nurturing innovative ideas from the students. An amount of Rs.48.50 Lakhs has been sanctioned by DST to establish IEDC in the college for five years starting from the academic year 2010-11. As a part of this initiative, Ideation contests were conducted every year. The college provides necessary facilities and financial support upto Rs.1.00 lakh to carry out these projects. A Committee consisting of experts from diverse

industries is involved in the selection of ideas. During the year 2012-13, 7 Ideas were short-listed and the list is as follows:

S. No.	Title	Student(s) name(s)	Branch	Faculty Mentor
1	Prosthetic Arm for Differently Abled People	Kartik Nooney, DNR Kumar, Ratnadeep, B. Savitha	2/4 ECE	Mr. N. Abid Ali Khan
2	Cyclo-Refrigerator	K. Sai Satvik, B. Srivatsal	2/4 Mech.	Mr. S. Venkataiah
3	Anti-Radiation Rods	N. Aswini	2/4 I.T	Prof. N. Vasantha
4	Electricity from Speed Breakers	B. Spurthi, Meghana Reddy, Vishaka, Snehitha	3/4 CSE	Mr. Vinay Kumar
5	LIGHT-LIFE SAVER	Mohammed Siddiq, K. Vamsee Reddy, V. Vikas, Chepuri Ramya	4/4 ECE	Mr. N. Abid Ali Khan
6	Wireless Charging Using Microwaves	Ch. Yaswanth Sai, B. Sandeep Goud, N. Abhinav, M. Vijay Kumar	3/4 ECE	Mr. N. Abid Ali Khan
7	Dynamic Vehicle Locator	N. Aswini	2/4 IT	Prof. N. Vasantha

### XIII. **INCUBATION CENTRE:**

The College has set-up an Incubation Centre to provide platform to startup and entrepreneurs to convert their innovative ideas into commercially viable products.

### XIV. **ACCREDITATION:**

An Expert Team from NBA visited the college during 18<sup>th</sup> – 20<sup>th</sup> January, 2013 to consider accreditation for various UG programmes. The College has obtained Accreditation for the six UG programmes being offered by the College in the year 2013 and their accreditation is valid from 18<sup>th</sup> September, 2013 to 17<sup>th</sup> September, 2015.

### XV. **RESEARCH & DEVELOPMENT:**

The Government of India Department of Atomic Energy Regulatory Board has sanctioned a Grant in Aid of Rs. 4,56,250/- (Rupees four lakh fifty six thousand two hundred fifty only) for the year 2012-2013 for the Safety related project titled "Thermo luminescence Characterization of Phosphors used in Display Devices for Possible use in Accident Dosimetry". Details of completed and ongoing projects are furnished at **Annexure – F**.

### XVI. **RANKS OBTAINED IN COMPETITIVE EXAMINATIONS:**

A total number of 45 students from various branches have obtained notable ranks in various competitive examinations viz., GATE, CAT and GRE.

**Annexure – A**

**LIST OF PUBLICATIONS**

S No.	Name of the Staff Member, Designation & Dept.	Title of the paper presentation made, Expert/Eminent person attended if any	Date of Issue, Volume, pp & year of publication
1	Mr. M.S.V. Sashi Kumar Assistant Professor Computer Science & Engg	Self Configuring Security ensuring trust in cloud computing	International Journal of Engineering Research and Technology (IJERT) Volume 1, 5 <sup>th</sup> issue, July 2012.
2	Mr. S. Vinay Kumar Assistant Professor Computer Science & Engg		
3	Mr. Sai Vamsidhar Rao Assistant Professor Computer Science & Engg		
4	Ms. M. Sunitha Reddy Assistant Professor Computer Science & Engg	Intrusion Detection using Data Mining	International Journal of Engineering Research and Technology (IJERT) Volume 1, 5 <sup>th</sup> issue, July 2012.
5	Mr. R. Sateesh Kumar Assistant Professor Computer Science & Engg		
6	Dr. Nagaratna P. Hegde Associate Professor Computer Science & Engg	Measurement of quality presentation of pan-sharpened image, International Journal of Engg. Research Technology (IJERT)	Vol. II, Issue 10, pp 12-17 of 2012
7	Ms. P.V.S. Subhashini Assistant Professor Mechanical Engineering	CIIT International Journal of automation and autonomous system	July 2012 Vol.4, No. 7; pp 311-318, DOI: AA072012009 ISSN: 0974-09659
8	Dr. G. Venkata Rao Visiting Professor Mechanical Engineering	"Analysis of SCARA Robot for pick and place under a kinematic constraint	
9	Mr. V. Punna Rao Assistant Professor Computer Science & Engineering	Blood Glucose Prediction Algorithms for Hypoglycemic and/or Hyperglycemic Alerts IJCSI International Journal of Computer Science Issues	Vol. 9, Issue 5, No 3, September 2012, ISSN: 1694-0814 Page No 164-168
10	Mr. C. Gireesh Assistant Professor Computer Science & Engineering		
11	Dr. N. Vasantha Professor Information Technology	Paper on "Design and Implementation of PCM Decommutator on a single FPGA"	Published in an International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE) Vol.1, Issue 7, September, 2012 ISSN No. 2278-1021 certificate Date: 02.10.2012. Pages Nos. from 494 to 499.

S No.	Name of the Staff Member, Designation & Dept.	Title of the paper presentation made, Expert/Eminent person attended if any	Date of Issue, Volume, pp & year of publication
12	Mr. M.V.S.S.Sastri, Associate Professor Civil Engineering	"Behaviour of High Strength Concrete with Recycled Aggregate and Fly Ash"	Published in "The First Australasia and South East Asia Conference in Structural Engineering and Construction" at Perth, Western Australia during 28 <sup>th</sup> November to 2 <sup>nd</sup> Dec, 2012.
13	Dr. T. Adilakshmi Professor & HOD Computer Science and Engineering	"Modelling & Analysis of WDMOPS Employing Tunable Converter Sharing under Self-Similar Variable Length Packet Traffic"	Published in the International Journal of Communication Technology Research, Volume 2 No11, November, 2012, Pages 813-819
14	Dr. T. Adilakshmi Professor & HOD Computer Science and Engineering	"Performance study of WDMOPS Employing Tunable Converter Sharing under Self-Similar Variable Length Packet Traffic"	Published in ICON 2012 - 18 <sup>th</sup> International Conference on Networks, Dec 12 <sup>th</sup> -14 <sup>th</sup> , Singapore pages: 114-119
15	Geeta Pattun Assistant Professor Computer Science and Engineering	"An Opinion base approach to Detect Black Hole Attack in MANETS",	Published in the proceedings of CARCAN2012, National Symposium, VBIT, Hyderabad
16	Dr. N. Vasantha, Professor & Head, Information Technology	"Bist Controller with Efficient Decoder and Adder for High Speed Embedded Memory Applications"	Published in the proceedings of IEEE PrimeAsia Conference 2012 at BITS Pilani Hyd Campus, 5-7 December 2012
17	Ms. S. Rajyalaxmi, Assistant Professor Information Technology	"Implementation of Distributed Key Management on Council based Clustering in MANETS"	Published in the proceedings of National Symposium on CARCAN-2012 in VBIT from 21-22 December 2012.
18	Mr. K.T. Srinivasa Rao Assistant Professor Information Technology	"HDLC Mode Implementation Of The Device Driver for Power PC MPC 850"	
19	Ms. B. Lalitha Bhavani Assistant Professor Information Technology	Advances in Information Technology, Computer Science and Applications (AITCSA) organized by NRI group of Industries from 28-29 December 2012.	
20	Ms. S. Rajyalaxmi Assistant Professor Information Technology		
21	Mr. K. Ram Mohan Rao Associate Professor & Systems Manager Computer Science and Engineering	A Distributed Dynamic Grid Scheduler for Mixed Tasks	3 <sup>rd</sup> IEEE International Advance Computing Conference (IACC-2013), Feb 22-23 2013, Ajay Kumar Garg Engineering College, Ghaziabad, UP.
22	Mr. J. Anjaneyulu, Assistant Professor with joint author Dr. A. Purushotham	"Kane's Method for Robotic Arm dynamics : a Novel Approach"	International Journal of IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE), e-ISSN : 2778-1684; p-ISSN : 2320-334X; Vol: 6, Issue: 4 (May-June 2013); Pp: 7-13.
23	Dr. M.V.Rama Rao, Professor	National Conference on "New Horizons in Civil Engineering"	Paper titled "Interval Finite Element Modeling of Space Trusses" published along with Rafi.L.Muhanna & Robert.L.Mullen

S No.	Name of the Staff Member, Designation & Dept.	Title of the paper presentation made, Expert/Eminent person attended if any	Date of Issue, Volume, pp & year of publication
24	Dr. B.Sridhar, Professor & Mrs. P.Dhatri, Assistant Professor	National Conference on "New Horizons in Civil Engineering"	Paper titled "Statistical Approach for Accident Study" published
25	Sri. G.Shraavan Kumar, Associate Professor	National Conference on "Sustainable Water Resources Planning, Management and Impact on Climate Change"	Paper titled "Geochemistry of Ground Water in Qutbullapur Area, Greater Hyderabad, Andhra Pradesh" presentation
26	Dr. B.L.P.Swami, Prof.	National Conference on "Sustainable Construction Material and Technologies (SCMAT-2013)"	6 Technical papers published
27	B.L.P.Swami	75th Annual Main Function of "The Institution of Engineers (India), Andhra Pradesh State Centre, Hyderabad"	Presented a paper titled "Studies on Concrete Composites with Nano Silica" was awarded as the Best Technical paper
28	Dr. B.L.P.Swami	National Conference on "Advances in Earth Sciences, Structural, Geotechnical and Earthquake Engineering (AESG2E-2012)"	<ul style="list-style-type: none"> <li>➤ Y.Chandrasekhar, B.Dean Kumar &amp; B.L.P. Swami "Resistance of Flat Slab floors in Multistoried Buildings against Lateral Loads"</li> <li>➤ N.Sivalinga Rao, Y.sulochana, Dr. V.Bhaskar Desai &amp; Dr. B.L.P. Swami, "Properties of Natural Light Weight Aggregate (PUMICA) Concrete"</li> </ul>
29	Mr. K. Srinivasa Chakravarthy	Attended and Presented a Research Paper in the National Conference on "Recent Trends in Computing and Information Technology"	

**Annexure – B****BEST ACADEMIC PERFORMANCE AWARDS**

Sl. No.	HT.No.	NAME OF THE STUDENT	BRANCH	MARKS SECURED	RANK
1.	1602-11-733-013	KAVYA SANAGAPALLI	CSE-A	1117	I
2.	1602-11-733-046	SPOORTHY N	CSE-A	1106	II
3.	1602-11-733-017	MANISHA VANKA	CSE-A	1088	III
4.	1602-11-733-092	RASHMI K.	CSE-B	1093	I
5.	1602-11-733-110	SRI MANVI GUPTA KONAKALLA	CSE-B	1090	II
6.	1602-11-733-062	AKHIL M.	CSE-B	1083	III
7.	1602-11-735-052	SWAPNA JAWALKAR	ECE-A	1169	I
8.	1602-11-735-002	ADITYA BOGGARAPU	ECE-A	1137	II
9.	1602-11-735-004	ANUPAMA NUKAPALLI	ECE-A	1136	III
10.	1602-11-735-094	SAI GAUTHAM THOPPA	ECE-B	1145	I
11.	1602-11-735-075	MOUNICA G	ECE-B	1130	II
12.	1602-11-735-064	HARIKA REDDY GURRAM	ECE-B	1105	III
13.	1602-11-734-019	KRISHNAVENI RIKKAMALLE	E.E.E	1100	I
14.	1602-11-734-025	NARENDRA KUMAR SUREPELLY	E.E.E	1071	II
15.	1602-11-734-002	AKHIL PRASAD PALEM	E.E.E	1067	III
16.	1602-11-736-057	SWATHI UPADHAYAY	MECH-A	1144	I
17.	1602-11-736-031	NAGA VAMSI PALATI	MECH-A	1122	II
18.	1602-11-736-016	KABRA SAURABH	MECH-A	1109	III
19.	1602-11-736-095	PRANEETH N.	MECH-B	1129	I
20.	1602-11-736-079	JAGAN MOHAN REDDY CHALLA	MECH-B	1084	II
21.	1602-11-736-066	AKHIL SAPARAM	MECH-B	1079	III
22.	1602-11-732-057	SUMANTH KUMAR KOTAKONDA	CIVIL	1073	I
23.	1602-11-732-069	YOGESHWER ANKAMWAR	CIVIL	1067	II
24.	1602-11-732-052	SRI RAM REDDY N	CIVIL	1066	III
25.	1602-11-737-050	SREEJA KANKANALA	I.T	1115	I
26.	1602-11-737-040	SAI SHARATH CHANDRA KALIKOTA	I.T	1093	II
27.	1602-11-737-033	PRAVEENA K	I.T	1084	III
28.	1602-11-737-049	SPOORTHI KARNATI	I.T	1084	III

**Annexure – C****BEST PROJECT AWARDS**

Sl. No.	HT.No.	Name of the Student	Branch	Nature of the Prize for their project
1.	006-09-4002	A.ABHINAV REDDY	ECE	I BEST
2.	006-09-4005	G.ANISHA REDDY	ECE	I BEST
3.	006-09-4025	U.MOUNICA	ECE	I BEST
4.	006-09-4050	M.SRINIVAS	ECE	I BEST
5.	006-09-1051	BYRRAJU SUMANTH VARMA	CIVIL	I BEST
6.	006-09-1052	GADDAM SUNIL KUMAR REDDY	CIVIL	I BEST
7.	006-09-1058	MEERJUMLA VINAYKANTH	CIVIL	I BEST
8.	006-09-1029	CHUKKA NIKHILESH GOUD	CIVIL	I BEST
9.	006-09-8032	LAHOTI PREETI	CSE	I BEST
10.	006-09-8048	N SITA RAMYASAROJA	CSE	I BEST
11.	006-09-5038	RAHUL V	I.T	I BEST
12.	006-09-5047	SHAWLINI	I.T	I BEST
13.	006-09-5052	SRIVASTSA MACCHAPALLY	I.T	I BEST
14.	006-09-6075	K.CHANDRAKANTH	MECH	I BEST
15.	006-09-6080	M.KARTHIKE	MECH	I BEST
16.	006-09-2035	PUTTA RAKESH BABU	E.E.E	I BEST
17.	006-09-2046	TAMMINENI SRAVANI	E.E.E	I BEST
18.	006-09-2057	VINEET KUMAR PANDEY	E.E.E	I BEST
19.	1602-09-862-055	P.VENU PRASAD	MCA	I BEST

**BEST ATTENDANCE AWARDS**

S.No	HTNO	Student Name	Father Name	Branch/ Section	I-INTERNAL Marks (180)	Rank Position	Eligible Amount for Books
1	1602-12-A042	GOUTHAMI MOGILI	M KOTESHWAR RAO	CSE (Sec.A)	167	FIRST	750
2	1602-12-A004	DINESH REDDY MEDIPALLY	MEDIPALY LAXMA REDDY	CSE (Sec.A)	162	SECOND	500
3	1602-12-A041	NAMRATA YADAV BANDA	B KRISHANA YADAV	CSE (Sec.A)	160	THIRD	250
4	1602-12-B008	CHEBROLU BALA SAI HARIKA	CH V RAGHAV RAO	CSE (Sec.B)	172	FIRST	750
5	1602-12-B009	TUMU HARI CHANDANA	T V R S N PRASAD	CSE (Sec.B)	171	SECOND	500
6	1602-12-B007	GOODISHETTI VASUDEV	G MANOHAR	CSE (Sec.B)	169	THIRD	250
7	1602-12-B025	SANNUTHI CHANDRA MOUNICA	S RAMESH BABU	CSE (Sec.B)	169	THIRD	250
8	1602-12-C006	SAI HARIKA YADALA	YADALA VENKATA KOTESWARA RAO	ECE (Sec.A)	173	FIRST	750
9	1602-12-C005	GURU SIREESHA PATTEM	P GURU PRASAD	ECE (Sec.A)	171	SECOND	500
10	1602-12-C008	PRUTHIVI VUYURU	V YUGANDHAR	ECE (Sec.A)	171	SECOND	500
11	1602-12-C002	ROHITH NAGARAJA G	G NAGARAJA	ECE (Sec.A)	170	THIRD	250
12	1602-12-C017	ANUSHA KOPPURAVURI	SRINIVASA RAO	ECE (Sec.A)	170	THIRD	250
13	1602-12-C033	RAJANI KORE	K KUMAR	ECE (Sec.A)	170	THIRD	250
14	1602-12-C037	SHIVANI NANGUNOORI	N ASHOK	ECE (Sec.A)	170	THIRD	250
15	1602-12-D008	SAI GAUTHAM REDDY LEKKALA	SATHYANARAYANA REDDY L	ECE (Sec.B)	171	FIRST	750
16	1602-12-D034	CHARISHMA TATINA	NARASIMHAM T	ECE (Sec.B)	169	SECOND	500
17	1602-12-D038	ANUSHA VAMANI TIRUMALASETTY	MURALI KRISHNA KUMAR T	ECE (Sec.B)	168	THIRD	250
18	1602-12-E017	NAMREDDY SURESH REDDY	N SUDHAKAR REDDY	EEE	172	FIRST	750
19	1602-12-E047	KAILA ANUSHA	KONDA REDDY	EEE	171	SECOND	500
20	1602-12-E018	KONAGALLA DURGA SRI SAI	KONAGALLA RAMA NAGA SRINIVAS	EEE	170	THIRD	250
21	1602-12-F013	MITHILESH KUMAR MAURYA	TEJ BAHADUR MAURYA	MECH-A	172	FIRST	750
22	1602-12-F016	AKHIL KOPPERA	K SURESH KUMAR	MECH-A	165	SECOND	500
23	1602-12-F034	HARSHINI K SHAH	KIRIT C SHAH	MECH-A	161	THIRD	250
24	1602-12-G062	CHOLLETTI BHAVYA SREE	CHANDRA SHEKAR	MECH-B	172	FIRST	750
25	1602-12-G001	KOPPOLU SAIKRISHNA PRASANTH	KOPPOLU PRABHAKARA RAO	MECH-B	168	SECOND	500
26	1602-12-G015	BOGGARAPU MANIKANTA	BOGGARAPU NARENDER KUMAR	MECH-B	166	THIRD	250
27	1602-12-H006	VOLETI SAI ANOOP ADITYA	VOLETI B VENKATESWARA RAO	CIVIL	168	FIRST	750
28	1602-12-H036	DANNANA SRAVYA	DANNANA SREEHARI RAO	CIVIL	167	SECOND	500
29	1602-12-H021	ANDALAM MANASA	ANDALAM GOPAL	CIVIL	164	THIRD	250
30	1602-12-H034	MANEPALLY NIVEDINI RAJ GUPTA	M RAMBABU	CIVIL	164	THIRD	250

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S.No	HTNO	Student Name	Father Name	Branch/ Section	I-INTERNAL Marks (180)	Rank Position	Eligible Amount for Books
31	1602-12-H050	BARYALA PREETHI SUDHA	B BALESHWAR	CIVIL	164	THIRD	250
32	1602-12-I005	NAGASAHITHI VALLERU	V JAYAPRAKASH	I.T-A	165	FIRST	750
33	1602-12-I048	INDHUJA PUSA	PUSA VENKATESH	I.T-A	164	SECOND	500
34	1602-12-I003	MOUNIKA KUDARAVALLI	KUDARAVALLI KRISHNA PRASAD	I.T-A	163	THIRD	250
35	1602-12-J007	AKSHITHA VYAS	BALKISHAN VYAS	I.T-B	161	FIRST	750
36	1602-12-J043	VIJAYKUMAR MAMIDALA	M ANANTHA SWAMY	I.T-B	161	FIRST	750
37	1602-12-J040	SHRAVYA KUSUMA	K SRINIVAS	I.T-B	159	SECOND	500
38	1602-12-J031	ABDUL FAUZIYA SALMA	ABDUL RAVOOF	I.T-B	158	THIRD	250

<b>SUMMARY</b>	
First Best	11 Nos.
Second Best	11 Nos.
Third Best	16 Nos.
<b>Total</b>	<b>38 Nos.</b>

## Annexure – E

**GOLD MEDALS**

SL No	Name of the Gold Medal	Conditions of the Award	Recipient Name & Marks	
1	Sri.Pendekanti Venkata Subbaiah Memorial <b>Gold Medal for the best student.</b>	Best student amongst of all branches passing out in 2012, who got highest marks in the University Exams.	This prestigious gold medal is awarded to Mr.GANGISHETTI SAI KRISHNA 06-09-4036	<u>4868</u> 5275 =92.28 %
2	Smt.Kanakamma Venkata Subbaiah <b>Gold Medal for Best girl Student.</b>	<b>Best girl student</b> amongst all branches passing out in 2012, who got highest marks in the University Exams.	This gold medal is presented to Ms.KALVA MEGHANA 06-09-1022	<u>5019</u> 5525 = 90.84 %
3	Dr.K.V.Subba Rao <b>Gold Medal</b>	<b>Best student</b> amongst <b>all branches</b> passing out in 2012, who got highest marks in the University Exams	The winner of the Gold Medal is Mr.GANGISHETTI SAI KRISHNA 06-09-4036	<u>4868</u> 5275 =92.28 %
4	Prof. G.Lakshmi Narayana <b>Gold Medal- Civil Engg.</b>	For the student who got highest marks in the Univ. Examinations amongst the <b>Civil Engg.</b> Students.	The winner of the Gold Medal is Ms.KALVA MEGHANA 06-09-1022	<u>5019</u> 5525 = 90.84 %
5	Sri. G.Narayana Chetty, IAS (Retd) <b>Gold Medal.</b>	For the student who got highest marks in the Univ. Examinations among the <b>Mechanical Engg.</b> Students.	The winner of the Gold Medal is Mr.MATTA KARTHIKE 06-09-6080	<u>4820</u> 5425 = 88.85 %
6	Sri.K.R.Krishnaiah Chetty Memorial <b>Gold Medal</b>	For the student who got highest marks in the Univ. Exams amongst the <b>ECE</b> students.	The winner of the Gold Medal is Mr.GANGISHETTI SAI KRISHNA 06-09-4036	<u>4868</u> 5275 =92.28 %
7	Sri.K.R.Gupta Memorial Gold Medal	For the student who got the highest marks in the Univ. exams amongst the CSE students.	The winner of the Gold Medal is  Ms.V.ANUSHA 06-09-8005	<u>4706</u> <u>5350</u> =87.96 %

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SL No	Name of the Gold Medal	Conditions of the Award	Recipient Name & Marks	
8	Dr.T.B.G.Tilak Memorial <b>Gold Medal</b>	For the student who got highest marks in the Univ. exams amongst the <b>EEE</b> students.	The winner of the Gold Medal is Mr.PUTTA RAKESH BABU 06-09-2035	<u>5003</u> 5450 =91.80 %
9	Sri.Sikakollu Subba Rao Memorial <b>Gold Medal.</b>	For the <b>Best Student</b> - who got highest marks in the Univ. exams amongst the <b>I.T</b> students.	The winner of the Gold Medal is Mr. D.RANJITH KUMAR 06-09-5042	<u>4695</u> 5400 = 86.94 %
10	Sri. K.Rosaiah <b>Gold Medal</b>	for the <b>Best Student</b> - who got highest marks in the Univ. exams amongst the <b>MCA</b> students	The winner of the Gold Medal is Ms.P.UMA 1602-09-862-051	<u>2730</u> 3350 = 81.49%
<b>Gold medals instituted by various organizations / individuals:</b>				
11	Sri P.Dharma Reddy <b>Gold Medal.</b>	<b>For the Best student</b> amongst of all branches.	The winner of the Gold Medal is Mr.GANGISHETTI SAI KRISHNA 06-09-4036	<u>4868</u> 5275 =92.28 %
12	"Sri.A.Venkata Ramana Memorial" <b>Gold Medal</b>	For the best student who got the highest marks amongst the M.E (ES&VLSID) students	The winner of the Gold Medal is Ms.B.SHIRISHA 1602-10-744-013	<u>1248</u> 1500 = 83.20 %
13	"Smt. & Sri.Eskala Pedda Ratnaiah Memorial" <b>Gold medal</b>	For the best student who got the highest marks amongst the M.E (AD&M) students	The winner of the Gold Medal is Ms.S.SRAVANTHEE 1602-10-745-013	<u>1193</u> 1500 = 79.53 %
14	Sri. A.R.Ravi Kiran Memorial <b>Gold Medal.</b>	For the student who got highest marks in the Univ. Examinations among the <b>Mechanical Engg.</b> Students.	The winner of the Gold Medal is Mr.MATTA KARTHIKE 06-09-6080	<u>4820</u> 5425 = 88.85 %
15	Sri. Mohammed Mujeebuddin Memorial Gold Medal <b>Gold Medal.</b>	For the student who got highest marks in the Univ. Examinations amongst the <b>Civil Eng.</b> Students.	The winner of the Gold Medal is Ms.KALVA MEGHANA 06-09-1022	<u>5019</u> 5525 = 90.84 %
16	Sri. D.Changal Raju Memorial Gold Medal <b>Gold Medal.</b>	For the student who got highest marks in the Univ. Examinations amongst the <b>E.C.E</b> Students.	The winner of the Gold Medal is Mr.GANGISHETTI SAI KRISHNA 06-09-4036	<u>4868</u> 5275 =92.28 %

## Annexure – F

### LIST OF COMPLETED AND ONGOING R & D PROJECTS

S No.	Name of the Project/ Consultancy job	Project/ Consultancy	Client	Period		Project cost (Rs. lakhs)
				From	To	
	<b>Projects completed:</b>					
1	Feasibility report for concentrating solar cell (CSC)	Project	Lensel Optics	Jun, 10	Aug, 10	0.35
2	Active IR Camera	Project	Eo2 Systems	Nov, 10	Aug, 11	3.00
3	Feasibility Report for Integrated Optical Gyroscope	Project	RCI, Vignyanakancha	Oct, 10	Feb, 12	8.85
4	Optical System for Measuring Angle	Project	Soliton Technologies Pvt. Ltd.	Feb, 12	Sep, 13	0.75
5	Quality Testing of C.C. and B.T. Roads	Consultancy	GHMC	2004	2012	2.25
6	Design of pavements	Consultancy	A.P. Marketing Dept.	2005	2010	2.30
7	Design of office buildings and quality checking of building works	Consultancy	Singareni Collaries	2006	2008	2.00
8	Stability Checking of Roof Top Cell Towers	Consultancy	GHMC	2008	2010	12.00
	<b>Projects Ongoing:</b>					
1	Design of CCD based optical imaging Module for star tracker application	Project	RCI, Vignyanakancha	Jul, 12		9.50
2	Development (Optics) of Obstruction Lighting Design	Consultancy	L & T Integrated Engg. Services	Jul, 10		No activity
3	Design and LED design for IRIS sensor	Project	ByDesign India Pvt. Ltd	Jun, 11		8.00
4	Feasibility Evaluation of I-Tester	Project	Titan Industries Ltd.	Sep, 12		2.15
5	Design Consultancy for RGB Lighting	Consultancy	iLumi Solutions	Sep, 12		US\$ 20/hr.
6	Proof Checking of Designs and Stability Checking	Consultancy	GHMC	2006	Ongoing	2.00
7	Concrete Mix Designs	Consultancy	GHMC	2006	Ongoing	12.00
8	Testing of material like cement, aggregate, bricks, concrete steel	Consultancy	Various Govt. and Private Agencies	2004	Ongoing	4.00
9	Soil testing	Consultancy	GHMC and other agencies	2006	Ongoing	3.11