INTERNAL QUALITY ASSURANCE REPORT

SUBMITTED BY

Dr.P.K.NAGARAJAN
PRINCIPAL

INTERNAL QUALITY ASSURANCE REPORT (IQAC)

S.A. ENGINEERING COLLEGE

POONAMALLE – AVADI ROAD,

THIRUVERKADU, CHENNAI - 600 077

Dr. P.K.NAGARAJAN, M.E., Ph.D.,
PRINCIPAL   02.08.2016

To
The Director,
National Assessment and Accreditation Council,
P.O. Box no.1075, Nagarbhavi,
Bangalore – 560072, Jarnataka,
India.

Sir,

      Sub: S.A. Engineering College, Chennai – IQAC cell – Submission of Quality
      Assurance Report – Reg.

      S.A. Engineering College started by Dharma Naidu Educational and Charitable Trust during 1997-1998 in accordance with the policy of Government of Tamil Nadu. The college is affiliated to Anna University, Chennai and the courses approved by All India Council for Technical Education, New Delhi and also accredited by National Board of Accreditation of AICTE. In recognition of the quality system of higher caliber being implemented for the administration of the Institution and achievement of its goals, TUVNORD have accorded ISO 9001:2008 Certification. The college offers 6 Undergraduate Courses and 8 Postgraduate courses programmes.

      We submit herewith the Internal Quality Assurance Report of our college for the academic year 2015-2016 (Odd Semester). All the detailed documents are enclosed along with this letter for your kind perusal. So we request you to consider this report and acknowledge the receipt of the same.

      Also please suggest us to improve the institution through the IQAC

                        Thanking you,

                                                PRINCIPAL

Encl: Internal Quality Assurance Report

Name of the Institute:S.A.Engineering College, Chennai

Semester Report   :2015-2016 (EVEN Semester)

Vision:

To transform our institution into quality technical education center imparting updated technical knowledge with character building.

Mission:

To create an excellent teaching and learning environment for our staff and students to realize their full potential thus enabling them to contribute positively to the community.To significantly enhance the self-confidence level for developing creative skills of staff and students.

Programme Educational Objectives (PEOs')

- ❖ To provide students with sound fundamental knowledge combined with good practical orientation

- ❖ To bring about an effective teaching learning process, by which the students will gain high self confidence with good verbal, technical and communication skills.

- ❖ To providing excellent academic environment for the students with a strong ethical attitude.

- ❖ To prepare students to be successful industrial careers in industry that meet the needs of Indian and Multi-National Companies.

- ❖ To create awareness on contemporary issues which will help the students to participate in competitive examinations

PART A

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the Semester.

1. Curriculum Aspects

- The Institution is Approved by AICTE, Delhi, Affiliated to Anna University, Chennai. and also the institution is Accredited by NBA, NAAC with 'A' grade and ISO 9001:2008 Certified.

- Grade-Credit System is followed

- The course curriculum is regularly updated by the University and the last updation was done during the academic year 2013-14 (Regulation - 2013).

- Curriculum development process is based on the recommendations of Board of Studies, Anna University. Various experts from the reputed Institution like IIT and NIT, Industrialist, Corporate sectors, Faculty and student feedback is considered on course content and design.

- Alumni feedback is also taken into consideration.

- Admission Process is as per the Anna University norms.

- Faculty members are working towards the development of student's carrier in various aspects like academics, communication skills, personality skill development, aptitude skills and Placement activities.

- Remedial sessions are organized for Slow Learners and enrichment sessions for the bright students.

2. Teaching – Learning Process and Evaluation System

- All the departments are having highly qualified and experienced faculty members with well equipped and Modern Laboratories.

- Faculty members are preparing Lesson Plan and Instruction Plan as per the schedule prescribed by the university.

- Lab Manuals, Study materials, University question bank with answer script and Tutorial Note books are prepared by the faculty members which is effectively implemented to enhance the student's academic performance.

- All departments have a well equippedseminar hall with smart board and multimedia projectors.

- NPTEL Video Lectures and Real time Videos are shown to the students in class room teaching to enhance their technical knowledge.

- Teacher - Student's ratio is maintained as 1:15

- FDP, Seminar, Conferences, Short term training programs and workshops are regularly conducted in every academic year to equip the faculty members and students with recent advancement in technologies.

- Continuous and comprehensive evaluation process is followed with three internal examinations, end semester exam in each course. Complete transparency is a key feature of our evaluation system.

- Students are empowered to design time table of examination to consider the convenience but to adhere with the examination schedule

- The performances of the students are determined by evaluating the answer scripts and the results are declared in time.

- Innovative evaluation practices used by considering the research article presentations, experimental ideas sharing, logistic approaches in scientific vision.

- Weekly an hour is allotted for counseling, library and seminar programme in regular time table itself.

- Extra Curricular activities like Cultural, Sports, Annual function, fresher's welcome and farewell functions are organized periodically. Induction Programme and interdepartmental matches are periodically conducted for all the department students.

3. Infrastructure and Learning Resources

- The Institution has more than 1000 computers for students and faculties.

- The students are having complete freedom to access any Laboratory Equipment's and Books and Journals from Library and online.

- Separate research laboratory is equipped with 60 systems along with latest software.

- Students Extra Curricular activities are executed through Entrepreneurship Development (EDC) Cell, Higher Education Cell, Women Empowerment Cell, Social Activity Cell like NSS, YRC and RRC, Sports Cell and Grievance Cell etc.

- Each department is having a separate Seminar hall, Library, Smart Classes, Counseling Room and Separate Health Care facilities are available.

4. Research and Consultancy Work

- Faculty members are actively involved in research& development and consultancy activities.

- PG and UG Students are also involved in research activities.

- Faculty members are periodically submitted their research work to various funding agencies like AICTE, DST, DRDO, MNRE, IEEE, ISTE, CVRDE, DEITY, CSIR and SERB etc.So for the faculties received the grand from National agency for the worth of Rs.2,25,13,660(Rupees TwoCrore Twenty five lakhs thirteen thousand six hundred and sixty).

- The institution has received around TwoCrore funded projects.

- Faculty members are published their research articles in reputed international journals and international conferences.

- The Institution has improved the academic and research activities in global level, through 42MoU's with Foreign Universities like Carnrgie-Mellon University, U.S.A

- All the departments are signed MoU with various Industries like Vi-Microsystems, Yokogawa, Trident Technologies, CADD Centre, RC Golden Granites, PAN Tech Solutions and ExcellaCometc to execute consultancy work.

- The above industries are periodically providing In-Plant Training and Internship Training to our students to improve their practical exposure with latest technological development.

5. Governance & Leadership

- Full academic autonomy

- Faculty members are involved in Teaching Learning Process, Examination and Professional Development activities of the Institution.

- Academic Calendar is strictly followed. Also Academic schedule is adhered and the syllabus is covered within the prescribed schedule.

- Strong emphasis on classroom teaching.

- Results are declared in time.

- Assessment of students is undertaken through regular and continuous evaluation including end semester examinations.

- The continuous improvement is based on the Student's feedback.

6. Innovative practices

- Exploring new horizons of all department area towards corporate entry, selection and success.

- Faculties are advising for the student's vision to become a good human being along with the success in professional and personal front.

- The faculty members and students are motivated to submit their innovative projects for applying patent.

7. Placement

- The Institution have a separate placement cell which provide a periodical training to the students to enhance their knowledge in various fields.

- The Placement cell is giving the following training to the students

  (i) BEC (Business English Certificate) Training

  (ii) Aptitude and Soft Skill Training

  (iii) Aptitude Test and Technical Training

- Faculties are advising for the student's vision to become a good human being along with the success in professional and personal front.

- More than 80% of students were placed in various MNCs every year with good package.

Programme Outcomes (PO's)

- ❖ Graduates will demonstrate high level of fundamental knowledge in Applied Science and Engineering.

- ❖ Graduates will demonstrate the ability to design, conduct experiment, analyze and solve practical industrial problems.

- ❖ Graduates will demonstrate the capability to suit themselves in research team in their specialization as well as to work on multi disciplinary teams.

- ❖ Graduate will be able to adapt themselves to adhere to the complex environment in outside world.

Part B: Outcome during this Semester through IQAC

- All faculty members are encouraged and supported by the college to involve in research and development activities in their own field. Based on that they received the fund from various funding agencies.

- The students are periodically undergoing in-plant training to enhance their technical knowledge and executing their projects in various consultancies on the basis of MoU signed with them.

- More than 80% of students are placed in reputed companies like L&T InfoTech, Tech Mahindra, Excellacom, Mu Sigma etc.

- Faculty strength is 257.

- Institution Internet connectivity upgraded from 20Mbps to 45Mbps (1:1).

- Number of company visited SAEC Campus increased from 63 to 97.

- The college improvements through IQAC Cell are listed in Annexure – 1.

PRINCIPAL
(Chairperson)
IQAC

S.A. ENGINEERING COLLEGE, CHENNAI- 600 0773

IQAC REPORT for Jan2016 May 2016

Summary of faculty Strength:

Department	Professor	Asso. Prof.	Asst. Prof	Pro-term Lecture	Total no of Faculty
B.E. CSE	4	8	23	1	36
M.E. CSE	1	-	2	-	03
B.E. ECE	4	9	23	-	36
M.E. Communication System	1	-	2		03
B.E. EEE	2	5	17	-	24
M.E. Embedded System Technologies	1	1	1	-	3
M.E. power Electronics and Drives	1	-	2	-	3
General Engineering	6	10	41	0	57
B.E. MECH	5	9	19	-	33
M.E. CAD/CAM	1	1	1	-	3
B.E. CIVIL	1	1	13	1	16
B.Tech. IT	1	2	9	-	12
MBA	02	-	14	-	16
MCA	-	2	10	-	12

PROFESSIONAL BODY MEMBERSHIP DETAILS 2015-2016 (EVEN SEM)

Sl. NO	Department	Professional Society Name	No of Faculty members
1.	CSE	ISTE, CSI, IAENG, MISACA, MISTE, MIDES, MIACSIT, IEEE	39
2.	ECE	ISTE, IEEE	39
3.	EEE	IETE, ISTE, IEEE, MIE, FIV	25
4.	MECH	ISTE, SAE, IWS, IE	33
5.	CIVIL	ISTE, IEI, RILEM	16
6.	IT	IACSIT, ISC, AAAS, CSTA, ISTE, IEEE, CSI, IAENG	12
7.	MBA	AIMS INTERNATIONAL, MMA MEMBERSHIP	10 / 02
8.	MCA	ISTE, CSI	8
9.	H&S	ISTE	19

STAFF STUDENT RATIO FOR 2015-2016 (EVEN SEM)

Department	Student Teacher Ratio
CSE	1: 13
ECE	1: 14
EEE	1:18
MECH	1:15
CIVIL	1: 18
IT	1: 14
MBA	1: 15
MCA	1: 11
H & S	1:15

LIST OF PROJECT PROPOSALS SUBMITTED BY FACULTY 2015-2016 (EVEN SEM)

Sl. No	Particulars	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H&S
1.	No. of project proposals/seminar grant submitted	6	18	5	10	1	2	01	-	-
2.	No. of project proposals/seminar grant sanctioned	3	-	-	01	-	-	-	-	-

NUMBER OF FACULTY PUBLICATIONS 2015-2016 (EVEN SEM)

Sl. No	Particulars	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
1.	No. of Publications	95	27	9	23	4	2	11	-	3

NUMBER OF STUDENT'S PUBLICATIONS 2015-2016 (EVEN SEM)

Sl. No	Particulars	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
1.	No. of Publications	176	44	-	10	5	28	-	15	-

List of MoU's

CSE:

Sl. No	Company Name	Year of Registration
1.	Maples ESM Technologies Ltd.	11-11-2003
2.	Nobal Care IT Solutions	05-01-2005
3.	Global Techno Solutions	11-03-2008
4.	Excelacom India pvt. Ltd	31-05-2012
5.	IEEE	07-02-2013
6.	Sybrant Technologies	13-05-2013
7.	Soft Square	04-12-2013
8.	Pantech Pro Ed	09-07-2013
9.	IBM India Pvt. Ltd	13-08-2014
10.	Milestone Edcom	12-09-2014
11.	CDAC	22-04-2015
12.	Perfinthealthcar	04/01/2016
13.	Oracle India Pvt. Ltd.	21/01/2016

ECE:

Sl. No	Company Name	Year of Registration
1.	IEEE	25.02.2016
2.	CDCE Automation	13.11.2014
3.	Milestone Edcom	12.09.2014
4.	Trident Tech labs	08.08.2014
5.	AkademikaLab Solutions Pvt Ltd	21.08.2013
6.	Sunshiv Technology	02.05.2014
7.	Regional Telecom Training Centre	17.04.2014
8.	Vi Microsystems	10.07.2013
9.	PantechProedPvt Ltd	09.07.2013
10.	Yokogawa India limited	17.05.2013
11.	Sybrant Technologies	13.05.2013
12.	Central Leather Research institute	15.06.2012
13.	University of Leicester	24.07.2012
14.	Excelacom India Pvt Ltd	31.05.2012
15.	iCarnegie, Pittsburgh USA	17.11.2011
16.	Oracle India Pvt. Ltd.	21.01.2016
17.	Electronics platform research lab	
18.	IBM India Pvt. Ltd.	13.08.2014

EEE:

Sl. No	Company Name	Year of Registration
1.	NSIC, Chennai	16.06.2015
2.	G.K Enterprises Pvt. Ltd., Chennai	22.07.2015
3.	TRANSUN	02.29.2015
4.	Vi Micro Systems	07.07.2010
5.	Excella Com	05.09.2010
6.	IEEE (Technical Co Sponsorship)	12.02.2012
7.	Yokogawa India Limited	17.07.2013
8.	Pantech Solutions	27.07.2014

MECH:

Sl. No	Company Name	Year of Registration
1.	CLRI	15-06-2012
2.	CADDAM SOLUTIONS	22-01-2016
3.	CADD Centre	25-07-2013
4.	MAYA APPLIANCES, Chennai	18-03-2015

CIVIL:

Sl. No	Company Name	Year of Registration
1.	HSS BIM – Auto Desk	25-04-2014

IT:

Sl. No	Company Name	Year of Registration
1.	Maples ESM Technologies Ltd.	11-11-2003
2.	Nobal Care IT Solutions	05-01-2005
3.	Global Techno Solutions	11-03-2008
4.	Excelacom India pvt. Ltd	31-05-2012
5.	Sybrant Technologies	13-05-2013
6.	Pantech Pro Ed	09-07-2013
7.	IBM India Pvt. Ltd	13-08-2014
8.	Milestone Edcom	12-09-2014
9.	InWEBZ Technologies	17-07-2015
10.	Object Frontier Systems	04-01-2016

MBA:

Sl. No	Company Name	Year of Registration
1.	HAJTRAINING ACADEMY	12.01.2009
2.	E-PAXIS AUTOMATION	06.06.2011
3.	CAPITAL MARKET SERVICES	06.06.2011
4.	BUROS CAPITAL VENTURES	09.08.2012
5.	IP DOME	10.01.2013
6.	SYBRANT TECHNOLOGY	10.05.2013
7.	MAYA APPLIANCES	18.03.2015
8.	APPIYO TECHNOLOGY PVT, LTD, SINGAPORE	19.03.2015
9.	SOUTH EAST ASIAN UNIVERSITY , SRILANKA	IN PROGRESS
10.	IP DOME	IN PROGRESS

MCA:

Sl. No	Company Name	Year of Registration
1.	Technophilia System pvt ltd, Mumbai & I Carnegie inc, Pittsburgh, USA, CRESE- Centre for robotics & Embedded systems excellences	17-11-2011
2.	Soft square solutions pvt ltd.	04-01-2013
3.	IP DOME – IP Stretegy Advisor	10-01-2013
4.	Excelacom India pvt. Ltd	15-05-2012
5.	Object Froniter Software Pvt Ltd.,	05-10-2015

LIST OF CONSULTANCY WORKS: 2015-2016 (EVEN SEM)

Sl. No	Particulars	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
1.	No. of Consultancy Works	1	6	5	10	1	3	2	5	-

FACULTY ORGANIZED FDP/ SEMINAR/WORKSHOP/SYMPOSIUM: 2015-2016 (EVEN SEM)

Sl. No	Programme	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
1.	FDP	-	1	-	01	1	-	-	-	-
2.	Seminar	-	-	2	-	-	-	-	-	-
3.	Workshop	2	1	1	01	-	1	7	-	-
4.	Symposium	-	-	-	01	-	-	-	-	-
5.	National/ International Conferences	1	2	1	-	-	-	01	-	1
6.	Incubation Project Presentation	-		-	-	-	1	01	-	-

NUMBER OF FACULTY ATTENTED FDP/ SEMINAR/WORKSHOP: 2015-2016 (EVEN SEM)

Sl. No	Programme	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
1.	FDP/STP	57	45	3	29	15	3	14	5	4
2.	Seminar	1	-	1	-	-	1	-	-	-
3.	Workshop	12	43	-	04	6	-	14	2	31
4.	International conferences	34	52	9	01	2	1	13	3	3

NUMBER OF STUDENT UNDER GONE INTERNSHIP TRAINING DURING ACADEMIC YEAR 2015-2016 (EVEN SEM)

DEPT	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
No of Students	181	179	125	15	-	34	17	-	-

NUMBER OF STUDENTS UNDER GINE THE IN-PLANT TRAINING:2015-2016 (EVEN SEM)

DEPT	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
No of Students	216	145	64	-	6	5	-	65	-

NUMBER OF MINI PROJECTS: 2015-2016 (EVEN SEM)

DEPT	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
No of Projects	-	61	40	39	-	-	83	59	-

NUMBER OF GUEST LECTURE (GL) AND INDUSTRIAL VISIT (IV): 2015-2016 (EVEN SEM)

Sl. No	Particulars	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
1.	**Guest Lecture (GL)**	7	10	10	10	6	6	4	2	3
2.	**Industrial Visit (IV):**	2	2	5	02	3	2	-	2	-

YRC / NSS Activities: 2015-2016 (EVEN SEM)

Sl. No	Name of the Activity	CSE	ECE	EEE	MECH	CIVIL	IT	MBA	MCA	H & S
1.	NSS	3	9	6	3	3	2	3	3	1
2.	YRC	1	2	6	-	-	1	1	1	-