PEER TEAM REPORT ON INSTITUTIONAL ACCREDITATION OF All India Shri Shivaji Memorial Society's College of Engineering

Place: Pune Pin: - 411001 State: Maharashtra

Section I: GENERAL	Information		
1. Name & Address of the Institution:	All India Shri Shivaji Memorial Society's College of Engineering 1, Kenedy Road, Near RTO, Pune-411001, Maharastra		
2. Year of Establishment:	1992		
3. Current Academic Activities at the Institution (Numbers):			
• Departments/ Centres:	07		
 Programmes/ Courses offered: 	08+07+1=16		
Permanent Faculty Members:	118		
Permanent Support Staff:	106		
Students:	3040		
4. Three major features in the institutional Context (As perceived by the Peer Team):	The Society has vast experience in running educational institute Centrally located Has laurels in sports and culture		
5. Dates of visit of the Peer Team (A detailed visit schedule may be included as Annexure):	07-08 September 2018		
6. Composition of the Peer Team which undertook the on- site visit:			
Chairman:	Dr. Shorosimohan Dan, Former Vice Chancellor & Pro Vice Chancellor, the University of Burdwan		
Member Co-ordinator :	Dr. P.V.Sivapullaiah, Former Professor Department of Civil Engineering, IISc,		
Member:	Dr. A. K. Tripathi, Professor in Computer Engineering, IIT, (BHU)		
NAAC Co-ordinator:	Dr. Ganesh Hegde, Deputy Adviser, NAAC		

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Section II: CRITERION WISE ANALYSIS

Observations (Strengths and/or Weaknesses) on each qualitative metrics of the key indicator under the respective criterion (This will be a qualitative analysis of descriptive nature aimed at critical analysis presenting strength and weakness of HEI under each criteria)

Criterion 1 - Curricular Aspects

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(Key Indicator and (Qualitative Metrics (O ₁ M) in Criterion I)

1.1.	Curricular Planning and Implementation :
1.1. 1 Q ₁ M	The institution ensures effective curriculum delivery through a well planned and documented process
1.2	Academic Flexibility:
1.3	Curriculum Enrichment:
1.3. 1 Q ₁ M	Institution integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum
1.4	Foodback System

Qualitative analysis of Criterion I (300 to 500 words)

The college was established in 1992 to impart quality technical education at affordable cost to all strata of the society. At present it offers eight UG and seven PG programmes. It has one research programme also but no one is registered to this programme at present.

The institute follows the curriculum of Savitribai Phule Pune University. However, some of the faculty members participated in the process of designing and developing curricula as member of BoS and Academic Council. The curricula offer choices of electives though within department. The time table provides high number of contact hours for students.

The institute has an Academic Committee comprising Principal, Heads of the Departments and others for planning and monitoring overall academic activities of the institution. Each department prepares its academic calendar in line with the institutional academic calendar. Principal convenes meeting of all the teaching and non-teaching staff before commencement of classes of each semester. Individual faculty members uploads its course outline (plan) unit wise, in ERP before commencement of semester.

The effective implementation of curricula is ensured by supplementing classroom teaching with expert lectures, seminars, mini-projects, industry visits, tutorials, assignments, NPTEL lectures, virtual Lab, moodles, moocs etc.

SMS are sent to the parents of absent students. Has provision of taking feedback from different stake holders which are analyzed and reported to BoS of the affiliating university.

The university programme itself has forty five courses which addresses gender, environment and sustainability, ethics etc. Over and above college itself practices issues related to environment, tree plantation, blood donation camp, social awareness programmes, digital awareness programmes etc. through its active NSS unit. Every year students organise national level student's symposium in which different events on professional ethics are show cased. It has technical clubs like Drone and Robotics, SAE Baja to enhance technical and social awareness among students.

Add on and skill development courses need to be strengthen.

Each department maintains academic calendar, time table, attendance and detention record of students, lectures, assignments, question bank for examinations, feedback of students etc.

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	Criterion 2 – Teaching-Learning and Evaluation (Key Indicator and Qualitative Metrics (Q ₁ M) in Criterion II)
2.1	Student Enrolment and Profile:
2.2	Catering to Student Diversity:
2.2.1 Q _i M	The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners
2.3	Teaching-Learning Process:
2.3.1 Q _i M	Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences
2.3.4 Q _i M	Innovation and creativity in teaching-learning
2.4	Teacher Profile and Quality:
2.5	Evaluation Process and Reforms:
2.5.1 Q _i M	Reforms in Continuous Internal Evaluation(CIE) system at the institutional level
2.5.2 Q _i M	Mechanism of internal assessment is transparent and robust in terms of frequency and variety
2.5.3 Q _i M	Mechanism to deal with examination related grievances is transparent, time-bound and efficient
2.5.4 Q _t M	The institution adheres to the academic calendar for the conduct of CIE
2.6	Student Performance and Learning Outcomes:
2.6.1 Q _i M	Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed on website and communicated to teachers and students
2.6.2 Q _i M	Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution
2.7	Student Satisfaction Survey:

Qualitative analysis of Criterion II (300 to 500 words)

The admission process is transparent. Admission in UG programmes is based on the common test carried by the competent authority of the State Government. M. E. students are admitted through GATE score by the competent authority of the State Govt. Admissions to the UG programme are by and large good even though the demand ratio is less than one. However, admissions to the M. E. programmes are weak and there is no student enrolled in Ph. D. Programme. All reservation criteria as applicable are met by the Institute, which allots students to the College for subsequent admission.

Induction program is organized for the beginners on the first day of holding classes. Students are made aware of the academic and other facilities available in the college. Learning levels of the learners are initially identified on the basis of results of qualifying examinations and through some questionnaire. For every 20 students there exists one mentor, particularly to look after the needs of the slow learners. Slow learners are provided with extra classes, remedial classes, and tutorial classes. Lectures of expert persons on value addition are arranged for all students. Activity for advance learners need to be encouraged suitably. There is special provision for soft skill training and counselling for all students since the College has identified the lack of communication skills as a major challenge facing them.

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Classes are held regularly and are largely in the conventional lecture mode. However, ICT enabled teaching-learning method is also in vogue to a great extent. Teachers make use of ICT by way of LCD projectors, using power point, NPTEL courses, virtual lab, Youtube, moodle mooes etc.

Active learning, problem based learning; experiential learning and project based learning are also practiced to make the learning student centric. Industrial visits also help to improve the learning level of the students. Students are given assignments that include some numerical problem solving as well as descriptive questions. Internal tests and attendance system are in place. Laboratory work is based on proper laboratory manuals produced by faculty members. These manuals contain the theory and the procedure to be adopted by the students in carrying out the work. Out of 118 permanent teachers 33 teachers have Ph. D. degrees.

Students have the opportunity to see their examination answer sheets, discuss with teachers to ensure transparency in internal examinations. Continuous evaluation takes the form of midterm and end-term examinations. Overall performance, attendance, feedback is communicated to the respective guardians.

Evaluation system and its reforms are the prerogative of the affiliating university. The institute meticulously conducts continuous internal assessment which consists of a major part of the evaluation system. Examination management system is computerized.

POs and PSOs are displayed for teachers and students in institute web site, notice board and some other places. COs, POs, and PSOs are mandatory part of course file prepared by course teacher and are attached to course journals of each student. The students of this institute have proved their excellence in university examinations by obtaining 7 gold medals and are having 66 rank holders during last 5 years in final year and around 180 since 2012.(first year to final year.)

Attainment of POs and PSOs are yet to be an integral part of the institute. Periodic academic internal audit is conducted by the college.

	Criterion 3 – Research, Innovations and Extension (Key Indicator and Qualitative Metrics (Q ₁ M) in Criterion III)
3.1	Resource Mobilization for Research
3.2	Innovation Ecosystem
3.2.1 Q _i M	Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge
3.3	Research Publications and Awards
3.4	Extension Activities
3.4.1 Q _I M	Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years
3.5	Collaborations:

Qualitative analysis of Criterion III (300 to 500 words)

The institute has signed one MOU with Organic Bots, North Carolina, USA to create an innovative ecosystem but its functioning is in the state of infancy with good early impact and effectiveness. It has received 3D simulator software costing about Rs 24 lacs and a EDS system costing about Rs. 45 lacs from Vesbe Germany. There are some more MOU's signed by different departments. The institute takes special efforts for transfer of knowledge through

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various technical activities like SUPRA, BAJA, ROBO club, DRONE, Aero design etc. The institute provides financial and infrastructural support for these programmes. A few faculties are recognised as research guides and some other faculties have potential for research supervision.

There are some projects running and completed also. Some of the departments are having good publications in journals having impact factor.

Start up/seed grants are to be provided to faculty and PG students for research to enable to undertake more extramural projects from funding agencies. The college has filed some patents also. Some faculty members are doing honorary consultancy in their respective areas.

The institute is actively involved in extension activities like Jagruti, Organ Donation camp, Blood Donation camp, Swatch Bharat Abhiyan, Green Campus, Tree Plantation, Road Safety Awareness programme etc through its active NSS unit. College has adapted 5 villages under Unnat Bharat Abhiyan initiative, Govt. of India

	Criterion 4 – Infrastructure and Learning Resources (Key Indicator and Qualitative Metrics (Q _i M) in Criterion IV)
4.1	Physical Facilities:
4.1.1 Q ₁ M	The institution has adequate facilities for teaching - learning viz., classrooms, laboratories, computing equipment, etc
4.1.2 Q _i M	The institution has adequate facilities for sports, games (indoor, outdoor, gymnasium, yoga centre etc.,) and cultural activities
4.2	Library as a Learning Resource:
4.2.1 Q ₁ M	Library is automated using Integrated Library Management System (ILMS)
4.2.2 Q _i M	Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment
4.3	IT Infrastructure:
4.3.1 Q _i M	Institution frequently updates its IT facilities including Wi-Fi
4.4	Maintenance of Campus Infrastructure:
4.4.2 Q ₁ M	There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Qualitative analysis of Criterion IV (300 to 500 words)

The institute has adequate infrastructure required for teaching and learning. It has 38 classrooms, 74 Laboratories, 8 seminar halls, common workshop, Central Library with Reading room, Playgrounds, Boys Hostel (100 inmates) and Girls Hostel (100 inmates) Classrooms and seminar halls have LCD projectors, smart boards with internet connectivity. Laboratories are equipped with sophisticated instruments like chassis dynamometer, Spectrum analyzer, liquid chromatography analyzer etc and software like Mat Lab, ANSYS, and AUTOCAD etc.

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The institute has central research laboratory with an environmental discovery system for waste water treatment and water purification.

Most of the buildings have ramps and/or elevators. Electronic surveillance system ensures security in the campus.

Imparting of instruction in soft skills is provided through well equipped Language laboratory.

It provides uninterrupted power supply through 250 KVA generator and has adequate water supply. Computer labs are well equipped; there is 155 MBPS leased line and a wi-fi enabled campus.

The students are encouraged constantly to involve in extra-curricular activities like Indoor & Outdoor Sports, Cultural Activities, Tree Plantation, Social awareness programm and financial assistance towards TA/DA, track suits and sports kits are provided.. The institute Gymkhana plays important roles towards overall development of the students. One of the students has been awarded with state level best sportsman award-Shiv Chhatrapati Award.

It has library with 720 sq. mts floor space and has 34332 numbers of books, with8060 unique titles. The library has a collection of different journals, reference books and rare books to cater to the needs of the researchers and project students. The rare books are stored in Calibre Digital library. It subscribes e-journals and e-books. Library regularly subscribes books on competitive examinations. It has started NPTEL Local Chapter, video lectures. Library is automated with System for Library Information Management (SLIM) software having version 21. Urkund anti plagiarism software is available.

The institute has six system software and sixty two application software. It has a network of 1055 computers with 155 Mbps internet connectivity. ERP system helps to manage the entire administration, campus operation and academic management in an efficient way.

All the Class rooms are connected with CAT6 cable and all the Departments are Wi-Fi enabled. Whole campus is under Surveillance through high resolution cameras. The entire campus LAN is maintained through three layer switching network.

The civil infrastructure facilities are maintained by the institute level campus committee, whereas laboratory equipments are maintained separately as and when required. The institute has separate maintenance system for IT infrastructure.

	Criterion 5 - Student Support and Progression (Key Indicator and Qualitative Metrics (Q _i M) in Criterion V)		
5.1	Student Support		
5.2	Student Progression		
5.3	Student Participation and Activities:		
5.3.2 Q ₁ M	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution		
5.4	Alumni Engagement:		
5.4.1 Q _i M	The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years		

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Qualitative analysis of Criterion V (300 to 500 words)

Student performance in the first year in the last 5 years is good and it varies from 81% to 84%. The pass percentage in the final examination during the last 5 years is appreciable which is in between 86% to 96%.

On-campus placement is rather moderate but there is anecdotal evidence that students get placed in off-campus. The number of students going into higher education, as per the college records, is also rather moderate.

The college arranges training for GATE and other competitive examinations.

Provision for scholarships, free ships by the institution besides government schemes is less.

Students' Council/General Students' Association (GSA) is formed as per act of the state and guidelines of the affiliating university. GSA is further sub-divided into different committees such as Student Grievance, Anti-Ragging, Sports, Technical Events etc

Students participate in various co and extra- curricular activities. There are technical committee for organizing technical events. Sports committee organises state and departmental level different sports and games. Students have won prizes in technical events, sports tournaments, cultural events held in university and state level, National Level and one in International Level.

Students participate in technical competitions such as BAJA, SUPRA, Aero-modelling etc. at International, national and state level and won prizes.

To raise social awareness, students participate in events like blood donation camps, tree plantation, and road safety campaigns; orphanage school visits are carried out.

The college has a registered Alumni Association. Alumni meetings are not held on regular basis. Alumni help the institute towards placements of students. Contribution of the alumni for the development of the institute is rather less.

Criterion 6 – Governance, Leadership and Management (Key Indicator and Qualitative Metrics (Q _i M) in Criterion VI)		
6.1	Institutional Vision and Leadership:	
6.1.1 Q _i M	The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution	
6.1.2 Q _i M	The institution practices decentralization and participative management	
6.2	Strategy Development and Deployment:	
6.2.1 Q _i M	Perspective/Strategic plan and deployment documents are available in the institution	
6.2.2 Q ₁ M	Organizational structure of the Institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism	
6.2.4 Q ₁ M	Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions	
6.3	Faculty Empowerment Strategies:	
6.3.1 Q ₁ M	The institution has effective welfare measures for teaching and non-teaching staff	
6.3.5 Q _i M	Institution has Performance Appraisal System for teaching and non-teaching staff	

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6.4	Financial Management and Resource Mobilization:	
6.4.1 Q _i M	Institution conducts internal and external financial audits regularly	
6.4.3 Q ₁ M	Institutional strategies for mobilisation of funds and the optimal utilisation of resources	
6.5	Internal Quality Assurance System:	
6.5.1 Q _I M	Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the qual assurance strategies and processes	
6.5.2 Q ₁ M	The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms	
6.5.5 Q ₁ M	Incremental improvements made during the preceding five years (in case of first cycle) Post accreditation quality initiatives (second and subsequent cycles)	

Qualitative analysis of Criterion VI (300 to 500 words)

The college is under a trust and under it there is a governing council as per AICTE norms. The governing council functions through different committees such as Planning and Development committee, Academic Administration Cell, General Administration Cell etc. The management is participative in nature. The strategic plan consists of operational matters like improvement of results, participation of students in activities, FDP programmes to be conducted etc. Though the vision of the college is about creativity, innovation etc., promotion of this aspect is not covered in the plan provided to the committee. As such the strategic plan provides short term goals of the College. Medium and long term goals of the college and strategies for achieving these are to be accelerated.

For increasing efficiency of administrative and academic processes, as well as to provide for a paperless office, the college has installed ERP system invested which is extensively being used. The Financial administration and academics all have benefitted by its use. However, the concept of paperless office is yet to be achieved. The bio metric attendance system for faculty and staff is in place.

It has different welfare schemes for the employees. Salary increments are given annually and there is a scheme for EPF. Gratuity is given at the time of superannuation.

Resource mobilization is largely through student fees, however, when there is a deficit then it is met up by the Society.

The college maintains audited statement of accounts and maintains a balance sheet and thereby maintaining complete transparency in its financial functioning.

The college has a functional IQAC. It has been contributing significantly to improve the quality of academic and administrative functioning like counselling of staff and students, activating Institute of Engineering, India IE (1) students chapter, improving academic monitoring system etc.

During the last 5 years the institute has made progress in the following areas:

- 1. Number of teachers having Ph. D. Increased from 7 to 33 Nos.
- 2. Number of patent filed increased from 2 to 43.
- Publications increased from 30 to 80.
 MOUs signed increased from 2 to 43.
- 5. The participation in NPTEL courses increased considerably.

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- 6. Installation of Solar Plan of 300 KW.
- 7. Installation of Biogas Plant and Waste Water Treatment (STP)
- Best Student Chapter award by Institute of Engineers (India) and Computer Society of India award etc.
- 9. Only College to have TRIZ Chapter.
- 10. Research Project funding has increased considerably.

	Criterion 7 – Institutional Values and Best Practices (Key Indicator and Qualitative Metrics (Q ₁ M) in Criterion VII)	
7.1	Institutional Values and Social Responsibilities:	
	Gender Equity	
7.1.2 Q _i M	Institution shows gender sensitivity in providing facilities such as: a) Safety and Security b) Counselling c) Common Room	
Tree.	Environmental Consciousness and Sustainability	
7.1.5 Q ₁ M	Waste Management steps including: Solid waste management Liquid waste management E-waste management	
7.1.6 Q _I M	Rain water harvesting structures and utilization in the campus	
7.1.7 Q ₁ M	Green Practices Students, staff using a) Bicycles b) Public Transport c) Pedestrian Friendly roads Plastic-free campus Paperless office Green landscaping with trees and plants.	
137 -	Differently abled (Divyangjan) friendliness	
	Inclusion and Situatedness	
931	Human Values and Professional Ethics	
7.1.18 Q _I M	Institution organizes national festivals and birth / death anniversaries of the great Indian personalities	
7.1.19 Q _i M	The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions	
7.2	Best Practices:	
7.2.1 Q _i M	Describe at least two institutional best practices (as per NAAC format)	
7.3	Institutional Distinctiveness:	
7.3.1 Q ₁ M	Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust	

Qualitative analysis of Criterion VII (300 to 500 words)

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The institution addresses the issues of gender sensitivity by taking care of the Safety & Security in general and girls in particular. The institute has installed several CCTV cameras at different strategic locations. Have Fire rescue path and fire rescue coordinator in every floor. The institute has students counselling cell and for every 20 students there is one mentor (faculty). Professional gents and ladies counsellors are appointed on adhoc basis. It has provision for girls' and boys' common room.

The college is well maintained and keeps good hygiene. Not only is the academic area clean but the playgrounds and general areas as well as the hostels, toilets and other amenities are kept in good shape. The campus is well endowed with greenery, trees, potted plants and well maintained lawns.

It has provision for solid, liquid and e- waste management. Solid waste is handed over to local municipality whereas liquid waste of wash rooms directly goes to municipal sewage line. E-waste is handed over to e-waste recycler. Rainwater harvesting system is in place. To promote green practice the institute encourages use of bicycle and public transport, plastic free campus green landscaping with tree and plants.

The institute celebrates national festival, birth anniversaries of great Indian personalities and different important days such as Teachers Day, Engineers Day etc.

So far as institutional best practices are concerned it has One Faculty One Industry Drive and Innovative Library. It helps to increase industry institute interactions. It has introduced best library reader award to motivate the students to heed towards library.

Institute is distinctive in providing global platform to students to participate in national and International technical competition.

Section III: OVERALL ANALYSIS based on Institutional Strengths, Weaknesses, Opportunities & Challenges (SWOC) (300 to 500 words)

Strengths:

The institute has a strong foundation

Experienced and dedicated faculty

Located in the heart of an industrial city and strong institute industry interaction

Recognised under 2(f) and 12B category of UGC

The attrition rate of teachers is very low and almost 90% of the faculty has been with the college for more than 5 years.

Weaknesses:

No major research projects

Limited placement in core industries

No consultancy work

. Less number of teachers with Ph.D

Opportunity:

The college can make a large impact in the area

Availability of a pool of youth wanting to become engineers is a major opportunity that the college has.

Research and consultancy initiative

Challenges:

Increase placement in core industries

To undertake industry sponsored projects

To create a culture of research

To fill up all seats of PG programms

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Section IV: Recommendations for Quality Enhancement of the Institution

(Please limit to ten major ones and use telegraphic language)
(It is not necessary to indicate all the ten bullets)

- To takes steps to obtain autonomous status
- · To increase cadre ratio
- · To set up separate boys' and girls' hostels nearer to the campus
- · Introduction of short term courses on foreign languages
- · Methods to enhance employability of students are urgently needed
- Intensive training for preparing students for competitive examinations
- · Health Insurance for faculty and staff
- · Doctor to be made available on campus for at least one hour per day
- · Library to be fully digitized
- Encourage teachers to undertake industry sponsored research projects and good quality publications

I have gone through the observations of the Peer Team as mentioned in this report.

Dr. D'S Bormane
Signature of the HENE posts Institution
ALL INDSESHRE SHEVALHUMENIORIAL SOCIETY'S
COLLEGE OF ENGINEERING
KENNEDY ROAD, PUNE-411 001.

Signatures of the Peer Team Members:

SL No	Name		Signature with date
1	Shorosimohan Dan	Chairperson	Lu-08.09-1
2	Dr. P.V.Sivapullaiah	Member Co-ordinator	8 49.10
3	Dr. A. K. Tripathi	Member	Admipathi
4	Dr. Ganesh Hegde, Deputy Adviser, NAAC	NAAC Co-ordinator	September Stritora

Place: Pune.

Date: 08.09.2018