

School of Energy & Environmental Studies (SEES)

The Annual Quality Assurance Report (AQAR) of the
IQAC
School of Energy & Environmental Studies (SEES):
Academic Year 2013-14

Part – A

1. Details of the Institution

1.1 Name of the Institution

School of Energy & Environmental Studies

1.2 Address Line 1

Takshila Campus,

Khandwa Road

Address Line 2

City/Town

Indore

State

Madhya Pradesh

Pin Code

452001

Institution e-mail address

spsanjali@gmail.com

Contact Nos.

+91-731-2460309

Name of the Head of the Institution:

Dr. S. P. Singh

Tel. No. with STD Code:

+91-731-2460309

Mobile:

+919424009418

Name of the IQAC Co-ordinator:

Dr. S. P. Singh

Mobile:

+919424009418

IQAC e-mail address:

iqac.sps.davv@gmail.com

1.3 NAAC Track ID (For ex. MHCOGN 18879) **EC/66/RAR/146 dated 21-02-2014**

1.4 Website address:

<http://www.sees.dauniv.ac.in/>

Web-link of the AQAR:

http://www.iqac.dauniv.ac.in/IQACREPORT2013_14.php

For ex. <http://www.ladykeanecollege.edu.in/AQAR201213.doc>

1.5 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	“B”	Four Star	2000	“Five Years”
2	2 nd Cycle	“B”	2.57	2008	“Five Years”
3	3 rd Cycle	“A”	3.09	2014	“Five Years”
4	4 th Cycle	NA	NA	NA	NA

1.6 Date of Establishment of IQAC : DD/MM/YYYY

21/11/2008

1.7 AQAR for the year (*for example 2010-11*)

2013-14

1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC (*for example AQAR 2010-11 submitted to NAAC on 12-10-2011*)

- i. AQAR _____ (DD/MM/YYYY)
- ii. AQAR _____ (DD/MM/YYYY)
- iii. AQAR _____ (DD/MM/YYYY)
- iv. AQAR _____ (DD/MM/YYYY)

1.9 Institutional Status

University State Central Deemed Private

Affiliated College Yes No

Constituent College Yes No

Autonomous college of UGC Yes No

Regulatory Agency approved Institution Yes No

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education Men Women
 Urban Rural Tribal
 Financial Status Grant-in-aid UGC 2(f) UGC 12B
 Grant-in-aid + Self Financing Totally Self-financing

1.10 Type of Faculty/Programme

Arts Science Commerce Law PEI (Phys Edu)

TEI (Edu) Engineering Health Science Management

Others (Specify)

Engineering Science

1.11 Name of the Affiliating University (*for the Colleges*)

NA

1.12 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University

University with Potential for Excellence UGC-CPE

DST Star Scheme UGC-CE

UGC-Special Assistance Programme DST-FIST

UGC-Innovative PG programmes Any other (*Specify*)

UGC-COP Programmes

2. IQAC Composition and Activities

2.1 No. of Teachers	<input type="text" value="3"/>
2.2 No. of Administrative/Technical staff	<input type="text" value="1"/>
2.3 No. of students	<input type="text" value="1"/>
2.4 No. of Management representatives	<input type="text" value="1"/>
2.5 No. of Alumni	<input type="text" value="1"/>
2.6 No. of any other stakeholder and community representatives	<input type="text" value="1"/>
2.7 No. of Employers/ Industrialists	<input type="text" value="1"/>
2.8 No. of other External Experts	<input type="text" value="1"/>
2.9 Total No. of members	<input type="text" value="10"/>
2.10 No. of IQAC meetings held	<input type="text" value="2"/>

2.11 No. of meetings with various stakeholders:

No.	<input type="text" value="10"/>	Faculty	<input type="text" value="4"/>
Non-Teaching Staff	<input type="text" value="4"/>	Students	<input type="text" value="1"/>
Alumni	<input type="text" value="0"/>	Others	<input type="text" value="1"/>

2.12 Has IQAC received any funding from UGC during the year? Yes No

If yes, mention the amount

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos.	<input type="text"/>	International	<input type="text"/>	National	<input type="text"/>	State	<input type="text"/>	Institution Level	<input type="text" value="4"/>
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(ii) Themes

2.14 Significant Activities and contributions made by IQAC

- Student Carrier counselling and carrier guideline
- Student activity support system

2.15 Plan of Action by IQAC/Outcome

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 year *

S No	Plan of Action	Achievements
1.	Preparation of the department and University for NAAC Inspection to be conducted this year	University was awarded "A" grade by NAAC
2.	Regular Seminars for students on various themes	Conducted Seminars on Personality Development, Career Counselling etc.
3.	Preparation for submission of research proposals to various funding agencies	Research proposals were submitted to AICTE, DST,UGC and MPCST.

* Attach the Academic Calendar of the year as Annexure.

2.16 Whether the AQAR was placed in statutory body

Yes No

Management

Syndicate

Any other body

University IQAC Cell

Provide the details of the action taken

During filing Some difficulties in new format of AQAR solved by IQAC Cell .

Part – B

Criterion – I

1. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	02	00	00	01
PG	02	00	01 Plan	00

UG	00	00	00	00
PG Diploma	00	00	01 Plan	00
Advanced Diploma	00	00	00	00
Diploma	00	00	00	00
Certificate	00	00	00	00
Others	00	00	00	00
Total	04	00	02	00
Interdisciplinary	00	00	00	00
Innovative	00	00	00	00

✓ ✓

1.2 (i) Flexibility of the Curriculum: CBCS/**Core/Elective option** / Open options , Yes

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	02
Trimester	0
Annual	0

1.3 Feedback from stakeholders* Alumni Parents Employers Students
(On all aspects)

Mode of feedback : Online Manual Co-operating schools (for PEI)

**Please provide an analysis of the feedback in the Annexure*

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

- | |
|--|
| <ul style="list-style-type: none"> • In accordance to Choice based Grading System, to provide more choices to the candidates according to their area of interest. • Curriculum development process is based on the recommendations of DBT, various experts from the academics, corporate sector and student's feedback on course content and design. • Syllabi are finalized in the meeting of the Board of Studies |
|--|

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Nil

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent

Total	Asst. Professors	Associate Professors	Professors	Others
03	00	01	02	00

faculty

1.2 No. of permanent faculty with Ph.D.

03

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
0	0	0	0	0	0	0	0	0	0

2.4 No. of Guest and Visiting faculty and Temporary faculty

04

00

00

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	0	02	0
Presented papers	0	0	01
Resource Persons	0	02	02

2.6 Innovative processes adopted by the institution in Teaching and Learning:

Use of Multi media presentation, Internet and field visit in various manufacturing plants facilities has been adopted by the Faculty. Students join project for a period of six months in last semester. Seminars are delivered by students. Answer books are shown to students after evaluation.

This led to improvement in student learning and knowledge.

2.7 Total No. of actual teaching days during this academic year

205

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

Nil

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

02

03

2

2.10 Average percentage of attendance of students

95%

2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
M.Tech.(EM)	16	56.25	43.75	0	0	100
M.Phil(E&E)	8	37.5	50	0	0	87.5

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes :

Feedback is taken from students, and students have easy access to teachers and other infrastructure facilities. . Meetings are regularly held between departmental IQAC committee and faculty of the department. Revision of the curriculum, by taking feedback by students, self appraisal of faculty, etc., review teaching learning process to ensure quality teaching.

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	Nil
UGC – Faculty Improvement Programme	Nil
HRD programmes	Nil
Orientation programmes	Nil
Faculty exchange programme	Nil
Staff training conducted by the university	Nil
Staff training conducted by other institutions	02
Summer / Winter schools, Workshops, etc.	Nil
Others	04

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	02	0	0	0
Technical Staff	00	0	0	0

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

1. IQAC conduct workshop for faculty and students on research methodology.
2. IQAC conducted lectures of eminent scientist and researchers to create research environment.
3. IQAC suggest for the development of research laboratory and procurement of software to promote research

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	01	04	0	0
Outlay in Rs. Lakhs	7.91	66.58	0	0

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	0	0	0	0
Outlay in Rs. Lakhs	0	0	0	0

3.4 Details on research publications

	International	National	Others
Peer Review Journals	07	05	00
Non-Peer Review Journals	00	00	00
e-Journals	00	00	00
Conference proceedings	03	02	00

3.5 Details on Impact factor of publications:

Range Average h-index Nos. in SCOPUS

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	Yearly	DST,UGC,MNRE	74.49	74.49
Minor Projects	00	00	00	00
Interdisciplinary Projects	00	00	00	00
Industry sponsored	00	00	00	00

Projects sponsored by the University/ College	00	00	00	00
Students research projects <i>(other than compulsory by the University)</i>	00	00	00	00
Any other(Specify)	00	00	00	00
Total	00	00	74.49	74.49

3.7 No. of books published i) With ISBN No. Chapters in Edited Books

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

UGC-SAP CAS DST-FIST
DPE DBT Scheme/funds

3.9 For colleges Autonomy CPE DBT Star Scheme
INSPIRE CE Any Other (specify)

3.10 Revenue generated through consultancy

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	0	0	0	4	0
Sponsoring agencies	0	0	0	Department	0

3.12 No. of faculty served as experts, chairpersons or resource persons

3.13 No. of collaborations International National Any other

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs :

From Funding agency From Management of University/College
Total

Type of Patent	Number
National Applied	00

3.16 No. of patents received this year

	Granted	00
International	Applied	00
	Granted	00
Commercialised	Applied	00
	Granted	00

3.17 No. of research awards/ recognitions received by faculty and research fellows
Of the institute in the year

Total	International	National	State	University	Dist	College
01	00	00	01	00	00	00

3.18 No. of faculty from the Institution
who are Ph. D. Guides
and students registered under them

03

19

3.19 No. of Ph.D. awarded by faculty from the Institution

02

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF 01 SRF 2 Project Fellows 0 Any other 03

3.21 No. of students Participated in NSS events: NA

University level 0 State level 0

National level 0 International level 0

3.22 No. of students participated in NCC events: NA

University level 0 State level 0

National level 0 International level 0

3.23 No. of Awards won in NSS: NA

University level 0 State level 0

National level 0 International level 0

3.24 No. of Awards won in NCC: NA

University level 0 State level 0

National level 0 International level 0

3.25 No. of Extension activities organized

0

0

University forum

College forum

NCC

0

NSS

0

Any other

4

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

-
-
-
-
- **Green Calendar for International Energy and Environmental Days**
- **Khan River cleanings drive**
- **Plantation Activities**

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	1259 Sqm	Planned	UGC	1259Sqm
Class rooms	02			
Laboratories	07			
Seminar Halls	01			
No. of important equipments purchased (\geq 1-0 lakh) during the current year.	0			
Value of the equipment purchased during the year (Rs. in Lakhs)	0.65		UGC,DST,MPCST	
Others	0.45		MNRE	

4.2 Computerization of administration and library

Yes, Library and administration are fully computerized

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	4439	----	18	0.76 lakh	4457	0.76 lakh+
Reference Books	100					
e-Books	40					

Journals							
e-Journals	84						
Digital Database							
CD & Video	85						
Others (specify)	50						

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	45	01	All	02	01	03	10	0
Added	0	0	0	0	00	0	0	0
Total	45	01	All	02	01	03	10	0

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

No

4.6 Amount spent on maintenance in lakhs :

i) ICT	0.30
ii) Campus Infrastructure and facilities	0.45
iii) Equipments	0.20
iv) Others	0.15
Total :	1.1

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- * Work for Vision and for achieving the mission
- * Enhancing Teaching and learning
 - Departments to benchmark with international departments of repute
 - Introduction of MBA with unique specialization in the Energy Management.
 - Modular teaching with Integrated Curricular from inter discipline department of the University

- * Enhancing Human resource planning and development
 - To organize at least one national workshop/ Seminar on green energy Technologies on par with International Standards
 - 2 training programmes, on use of Solar energy devices and operation and maintenance of biogas plant
 - Formalizing Mentoring for first year students
- * Enhancing Industry interaction
 - Finalizing Institute – Industries forum
 - Signing at least 1 MoUs per year with Industries /NGOs
- * Enhancing Internationalisation
 - On line forum to discuss Energy & Environmental issues around the globe

5.2 Efforts made by the institution for tracking the progression

Field visits in different large industries/organizations and huge renewable energy field systems is found very effective for understanding the issues related to technical and economical aspects of real design, construction, implementation and operational systems.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
0	47	19	0

(b) No. of students outside the state

12

(c) No. of international students

Men	No	%	Women	No	%
	16	64		09	36

Last Year (12-13)						This Year (13-14)					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
16	02	0	4	0	22	17	4	0	4	0	25

Demand ratio =1:3.3 Dropout % =~1%

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

No. of students beneficiaries

5.5 No. of students qualified in these examinations NA

NET	<input type="text"/>	SET/SLET	<input type="text"/>	GATE	<input type="text"/>	CAT	<input type="text"/>
IAS/IPS etc	<input type="text"/>	State PSC	<input type="text"/>	UPSC	<input type="text"/>	Others	<input type="text"/>

5.6 Details of student counselling and career guidance

Guidance and counselling is provided to the students for academic improvement and project placements.

- ✓ University Ca nseling Cell organizes the lectures time to time.
- ✓ A language laboratory is setup for all students from UGC grant at School Of Computer Science and Information technology
- ✓ Department give the training of skill development through real field project such as Energy auditing and energy conservation , designing of solar thermal and power generation projects, Environmental Impact Assessment etc and these activities help in their jobs.

5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed

Students are employed during their project in last semester. There is no need to call companies for interview in campus in our department.

5.8 Details of gender sensitization programmes

Anti Ragging Committee formed University conducts programmes for gender sensitization.

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level National level International level

No. of students participated in cultural events

State/ University level National level International level

5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports : State/ University level National level International level

Cultural: State/ University level National level International level

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	Nil	Nil
Financial support from government	All SC/ST/OBC students	As per Govt.
Financial support from other sources	Nil	Nil
Number of students who received International/ National recognitions	02	NRE Fellow ship

1. Scholarship and fee reimbursement to ST/SC and OBC through State Government
2. The department are AICTE approved. All students taking admission in M.Tech. courses in 2012-14 batch are GATE qualified and receive Rs. 8000/- per month as stipend as and when it is received from AICTE.

5.11 Student organised / initiatives

Fairs : State/ University level Y National level Y International level

Exhibition: State/ University level Y National level International level

5.12 No. of social initiatives undertaken by the students Y

5.13 Major grievances of students (if any) redressed: _____

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision

To be a frontline school specializing in need based research and in developing professionals for energy and environmental solutions.

Mission

» To develop and provide world class professionals with excellent analytical, communication skills and ability to work in the field of Energy and Environment.

» To ensure excellent research work to be competitive internationally and to cater to the needs of local / regional and national significance in the area of energy and environment.

» Inculcate professional, social and environmental ethics among youths to serve mankind and society.

6.2 Does the Institution has a management Information System

NO

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

Department uses the feedback as indicator of the overall quality of the teaching and learning and using this indicator the required changes implemented.

6.3.2 Teaching and Learning

Three Stage Teaching by using multimedia teaching methods, chalk-and-talk **method** and Field Visits in Industries/organizations/Renewable systems sites for practical knowledge on different real systems/processes in the field of Energy and Environment was adopted

Theories, Seminars, Field visits, DVDs, Projects were used to assess the learning progress of the student. Overall Knowledge was also assesses by external expert and teachers in comprehensive viva voce

- Final outcome assessed on the basis of regular minor, seminars, group discussion, assignments etc
- Feedback form with ten impotent aspects of teaching and teacher is circulated to students at the end of each semester. Feedback data is analyzed in percentage on the by assigning the numbers to each activity.
- Departmental committee discuss all the issues related to teaching curriculum, question papers, examination procedure, evaluation methods and feedback percentage of individual teacher calculated from students feedback. The strength and weakness are communicated in the meeting to the concern teachers. A teacher is also guided by senior Faculty for improving teaching-learning process in next semester. The steps are taken also to improve the quality of the teaching-learning process

6.3.3 Examination and Evaluation

- Hard Copies of Teaching plan and schedule are distributed to students in advance.
- Examinations held as per Ordinance 31
Information is hosted at website www.dauniv.ac.in

6.3.4 Research and Development

- ✓ Research laboratories are well equipped with required facilities and having modern instruments and equipments.
- ✓ Each Teacher has One/Two research laboratory separately for their research work. Some Research Laboratories are
- ✓ Biomass conversion Laboratory
- ✓ Fuel cell and PEM

6.3.5 Library, ICT and physical infrastructure / instrumentation

Library is fully computerized for the records and availability check of books, journal and magazines.

TLSS software is used for Database and searching the books.

INFLIBNET/IUC facilities are used frequently for research work.

University has ICT infrastructure. Wi-Fi campus ,best auditorium and sports fields.

Class rooms and seminar hall are equipped with multimedia setup to make ICT-enabled classrooms

Department availing of the National Knowledge Network connectivity Through Internet network byIT center in the class rooms.

6.3.6 Human Resource Management

All teachers are engaged actively in research and development therefore remains in contact with front line research and changing scenario in the field of energy and environment. The changing requirements of curriculum are discussed in Departmental Meetings. The planning of next year is done by fixing responsibilities of different activities are to be carried out. A departmental calendar is prepared.

6.3.7 Faculty and Staff recruitment

Faculty and staff members are recruited by University norms on regular and contract basis.

6.3.8 Industry Interaction / Collaboration

- ✓ Industries help by giving permissions and to explain the processes and technologies used in industrial experts during their field visits. Also Industrial experts come for lectures in the department and discuss the issues related to energy and environment on specific processes and system performances.
- ✓ Training and jobs are provided to students with the cooperation of Stakeholders.
- ✓ Industrial experts and Stakeholders cooperate also in modifications in curriculum every year by providing their suggestions and expert opinion.

6.3.9 Admission of Students

Admission notice for all the programmes is published in Employment News and Selected national and local newspapers in the month of April/May and also displayed on University Website: www.dauniv.ac.in . Applications are downloaded or apply online from the website: mponline.gov.in

6.4 Welfare schemes for

Teaching	University quarter-1, Wardenhouse-2, Shishu vihar – 2 faculties are using.
Non teaching	University quarter-5, ESI-41,EPF ,etc
Students	Scholarships, Various clubs and cells

6.5 Total corpus fund generated

6.6 Whether annual financial audit has been done Yes Y No

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic				
Administrative				

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes Yes No

For PG Programmes Yes No

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

Department has developed mechanism for well conduction of all examination and evaluation processes. Department is timely manage all internal and end semester examination, their schedule, time-table and evaluation process. The department is following Central Valuation system for evaluation. The evaluation work starts from the first day of commencement of the examination and results declared within 10 days after the examination. Result preparation is done computerized

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

Ordinance 31 provides academic and evaluation function autonomous to the school. University conveys appreciation of the work of Dr. S P Singh. Performa based assessment (prescribe by UGC) is filled at the end of every year by each faculty. Self appraisal and PBA form are assessed by University. Remarks are conveyed to the faculty. So for no adverse remarks has been communicated for the faculty of the School

6.11 Activities and support from the Alumni Association

SEES Alumni association having an interaction through Internet

Rs 300 per student fee is taken for the alumni association

6.12 Activities and support from the Parent – Teacher Association

Department always welcome all the queries of parents

6.13 Development programmes for support staff

Next year i.e. in 2014-2015 short term courses will be organized for the support staff.

6.14 Initiatives taken by the institution to make the campus eco-friendly

<ul style="list-style-type: none">* Energy conservation<ul style="list-style-type: none">✓ Energy Audit of all departments are done by the School faculty and students. Reports are to be submitted* Use of renewable energy<ul style="list-style-type: none">✓ 5 kW_p Photovoltaic power plant to meet the maximum demand of the department* Water harvesting<ul style="list-style-type: none">✓ Roof harvesting system based on rock fracturing technique was installed* Check dam construction<ul style="list-style-type: none">✓ Small Pond is to be constructed for Water Recharging for University.* Efforts for Carbon neutrality<ul style="list-style-type: none">✓ Yes, Energy and water conservation in building in addition to gardens and plantation.
<ul style="list-style-type: none">* Plantation<ul style="list-style-type: none">✓ More than 500 Trees, shrubs and flower plants are grown in and around the School building.* Hazardous waste management<ul style="list-style-type: none">System to be installed* e-waste management<ul style="list-style-type: none">e-waste collected and sold to Government approved vender.

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Involvement of students in frontline research and consultancy projects making better professionals in the field of Energy and Environment. It is observed that they are well trained with enhanced practical knowledge and fully developed skills in energy auditing and conservation, design of renewable energy systems and environment assessment projects. They learn about the practical design aspects, data collection and measurements, analysis of data, results interpretation and appropriate recommendations for future and preparation of Detailed Project Report (DPR). It is also acknowledged by us and stakeholders.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

The Department is strictly following the Academic Calendar. Special Classes for advanced learners and remedial classes for the weaker students have been conducted.

7.3 Give two Best Practices of the institution (*please see the format in the NAAC Self-study Manuals*)

- Suggestions from senior alumni on job requirements during project time .
 - Keeping the records of alumni.
 - Regular revision of the syllabus
 - Regularly update the full functional web site of University.
 - Transparency in the admission and examination process. The admission list is prepared by different board members. The final marks are compiled of four members of a board and then merit list displayed on the notice board & internet same day.
The examination copies are shown to the students before the comprehensive viva voce.
 - Use of ICT in all the class rooms.
 - Field visits are organized for the students on alternative Saturday.
 - Seminar is organized every week for students presentation on specific topics.
 - Extra coaching for the weak and advance students are held by individual

**Provide the details in annexure (annexure need to be numbered as i, ii,iii)*

7.4 Contribution to environmental awareness / protection

School organized different activities for environment protection. i.e. plantation , shram dan in a day an hour every week.

Environment Consciousness

Department Area Green Audit details

Energy Efficient Building Design

Features

- ✓ East –west long orientation: Minimum cooling load in summer and maximum heat gain in winter
- ✓ Hollow walls: Reduction in cooling and heating load in summer and winter
- ✓ South wall windows for maximum solar heat gain in winters
- ✓ North wall window designs for proper lighting.
- ✓ Exact overhang sizes to cut direct radiation gain into the building
- ✓ Light colours on outside walls for minimum heat gain
- ✓ Light shaft for lighting
- ✓ Reflection from overhangs top white tiles to roof inside the building
- ✓ Passive cooling tower to cool /reduce Air conditioning load whole building in Summer

Energy efficient lighting, Air conditioners and other gadgets

The following Energy efficient lighting and Air conditioners are installed for use and demonstration.

- ✓ T5 (26 W) tube lights,
- ✓ CFL's,
- ✓ LED lights for inside and outdoor lighting,
- ✓ Metal Halide fixtures,
- ✓ Induction lighting systems
- ✓ Energy efficient Five Star and three star Air conditioners are installed in the building
- Flat LCD screens installed with computers in replace of old CPU.

Water Conservation

- ✓ Roof harvesting system based on rock fracturing technique was installed.
- ✓ Sprinklers are installed for gardens irrigation.
- ✓ Water wastages is minimized by checked regularly the leakages by maintenance.

Waste Recycling Minimization

- ✓ Use of Paper is minimized by using more electronic communication.
- ✓ Organic Solid waste is converted to compost by **vermi composting method**.

Renewable Energy Systems

- ✓ 5 kW_p Photovoltaic power plant to meet the maximum demand of the department
- ✓ 2 cu meter biogas plant for departmental kitchen and for demonstration
- ✓ Water heating system c also coupled to kitchen for hot water requirements as tea making etc.

Reuse of Resources

- ✓ Composted slurry and composed manure from vermin composting systems are used in gardening and plantation in the department as well as in the university.

7.5 Whether environmental audit was conducted? Yes No

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

1. Strength

- (a) High spirit of Team work to complete any task assigned or taken by the School and focus on both knowledge acquisition and employment capabilities of student

- (b) Promotion of Inter-disciplinary research to bring science and technology

3. Opportunities

- (a) Participation in Exchange programmes with foreign Universities
- (b) Invite alumni for guest lectures and as external experts for examination
- (c) Syllabus modifications according to Industries/organisations need
- (d) Academic autonomy to the School

4. Challenges

- (a) To develop Research and educational Laboratories of International standards
- (b) Collaboration with International Institutes / Universities/ R&D organizations.
- (c) Increasing Student-teacher ratio
- (d) To provide Value Education to students

8. Plans of institution for next year

School will start two new M.B A and P. G. Diploma programmes in next year.

Name _____

Name _____

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

_____ *** _____

Annexure I

Abbreviations:

CAS - Career Advanced Scheme

CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence
UPSC	-	Union Public Service Commission
