



# Annual Quality Assurance Report (AQAR) of the IQAC

Academic Year  
2012-2013

**GOVERNMENT INSTITUTE OF SCIENCE,  
NIPAT NIRANJAN NAGAR, CAVES ROAD  
AURANGABAD-431 004, MAHARASHTRA**

# The Annual Quality Assurance Report (AQAR) of the IQAC 2012-13

## Part – A

### I. Details of the Institution

1.1 Name of the Institution

1.2 Address Line 1

Address Line 2

City/Town

State

Pin Code

Institution e-mail address

Contact Nos.

Name of the Head of the Institution:

Tel. No. with STD Code:

Mobile:

Name of the IQAC Co-ordinator:

Mobile:

9833494261

IQAC e-mail address:

iqacgis@gmail.com

1.3 NAAC Track ID(For ex. MHCOGN 18879)

MHCOGN11453

1.4 NAAC Executive Committee No. & Date:

(For Example EC/32/A&A/143 dated 3-5-2004.

This EC no. is available in the right corner- bottom of your institution's Accreditation Certificate)

September 16, 2004

1.5 Website address:

www.inosca.org

Web-link of the AQAR:

<http://www.inosca.org/naac-reaccreditation-cycle-2.html>

For ex. <http://www.ladykeanecollege.edu.in/AQAR2012-13.doc>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	B++		2004	2009
2	2 <sup>nd</sup> Cycle				
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

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

15/01/2005

1.8 AQAR for the year (for example 2010-11)

2012-13

1.9 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 2005-06 submitted to NAAC on 31/05/2014
- ii. AQAR 2006-07 submitted to NAAC on 31/05/2014
- iii. AQAR 2007-08 submitted to NAAC on 31/05/2014
- iv. AQAR 2008-09 submitted to NAAC on 31/05/2014
- v. AQAR 2009-10 submitted to NAAC on 31/05/2014
- vi. AQAR 2010-11 submitted to NAAC on 31/05/2014

1.10 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

1.11 Type of Faculty/Programme

Arts  Science  Commerce  Law  PEI (PhysEdu)

TEI (Edu)  Engineering  Health Science  Management

Others (Specify)

1.12 Name of the Affiliating University (for the Colleges)

Dr. Babasaheb Ambedkar  
Marathwada University, Aurangabad

1.13 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

2.2 No. of Administrative/Technical staff

2.3 No. of students

2.4 No. of Management representatives

2.5 No. of Alumni

2.6 No. of any other stakeholder and  
community representatives

2.7 No. of Employers/ Industrialists

2.8 No. of other External Experts

2.9 Total No. of members

2.10 No. of IQAC meetings held

02

2.11 No. of meetings with various stakeholders:

No.

Faculty

Non-Teaching Staff /Students

Alumni

Others

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.

International

National

State

Institution Level

(ii) Themes

NA

2.14 Significant Activities and contributions made by IQAC

- The staff members are encouraged to submit research projects to various funding agencies, pursue research work, and publish papers in peer reviewed and refereed journals participate in and organize conferences.
- The Placement and training cell established to offer career guidance to the students and to co-ordinate with the Institutes and Industries for arranging in campus or off campus interviews.
- The faculty members participated in refresher courses
- The guest lectures by eminent persons are arranged to keep the students abreast of the current developments in the subject.
- Study tours and industrial visits are organized in order to acquaint the students with the application of their theoretical knowledge.

## 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 \*

Plan of Action	Achievements
<ul style="list-style-type: none"> <li>• Encouraging the faculty members to contribute to syllabi designing and revisions.</li> <li>• Establishment “Placement and training Cell” in the institute for providing guidance to the students with respect to admissions, career prospects, preparation for competitive exams, placement and training and personal counseling.</li> <li>• Motivation to the teaching staff in faculty development programmes.</li> <li>• Organization of and participation at seminars/workshops/state and regional level.Focus on research activities to be carried out by staff and students.</li> <li>• Motivating faculty members and students to participate in extension activities and community services.</li> <li>• Providing additional library facilities such as reading room for students and staff, separate newspaper reading facility and open access facility.</li> <li>• Inviting experts from various fields and alumni for guest lectures, seminars, workshops, conferences</li> </ul>	<ul style="list-style-type: none"> <li>• The faculty members are involved in the framing and revision of syllabus as a part of various committees in the University</li> <li>• The staff members are encouraged to submit research projects to various funding agencies, pursue research work, and publish papers in peer reviewed and refereed journals participate in and organize conferences.</li> <li>• The Placement and training cell established to offer career guidance to the students and to co-ordinate with the Institutes and Industries for arranging in campus or off campus interviews.</li> <li>• The faculty members participated in refresher courses</li> <li>• The guest lectures by eminent persons are arranged to keep the students abreast of the current developments in the subject.</li> <li>• Study tours and industrial visits are organized in order to acquaint the students with the application of their theoretical knowledge.</li> </ul>

\* *Attach the Academic Calendar of the year as Annexure.*

2.15 Whether the AQAR was placed in statutory body      Yes       No

Management       Syndicate       Any other body

Provide the details of the action taken

## Part – B

### Criterion – I

#### I. 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	05	--	--	--
PG	05			
UG	--			
PG Diploma	--			
Advanced Diploma	--			
Diploma	--			
Certificate	--			
Others	--			
<b>Total</b>	10			
Interdisciplinary				
Innovative				

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

##### (ii) Pattern of programmes:

Pattern	Number of programmes
Semester	05
Trimester	--
Annual	--

##### 1.3 Feedback from stakeholders\*Alumni

*(On all aspects)*

Parents
  Employers
  Students

##### 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.

The Institute is affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad and the curriculum designed by the University is followed. Some faculty members are involved in designing of the syllabus and revisions in the syllabus. The faculty members are associated with the Board of Studies of the University.

Prof. S.G. Kulkarni: Chairman of Board of Studies in Biophysics

Dr. Mrs. S. M. Dharmadhikari-- Member of the Board of Studies in Microbiology

Dr. S.M. Deshpande—Member of Board of studies in Geology

Dr.A.G. Jadhav: Member of Board of studies in Bioinformatics



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

NO

## Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
20	13	04	02	01

2.2 No. of permanent faculty with Ph.D.

15

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
13	08	04	06	02	02	01	--	20	16

2.4 No. of Guest and Visiting faculty and Temporary faculty

	11 visiting	37 On CHB
--	-------------	-----------

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	--	02	--
Presented papers	02	11	--
Resource Persons	--	06	--

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

- The students and Staff are encouraged for participate in Conference/Workshops/Symposiums so as to have academic exposure to latest trends in Science.
- Library access to students beyond office hours during exams for better preparation.
- Parents Meet is conducted periodically.
- Regular guidance for different competitive exams is given.
- The modern techniques are used for teaching and learning process.
- The social responsibilities are imbibed in the students. The relevant programs are organized by the NSS unit.
- Researchers from other Institutions are allowed to use laboratory and library facilities in the Institute.
- Analytical facilities and consultancies are provided free of cost to Researchers from other Institutions
- Students are guided and motivated to prepare concise but in-depth descriptive cards of terms/concepts pertaining to the syllabus, now popular as the "R R Pattern".

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

180

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

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

04		
----	--	--

2.10 Average percentage of attendance of students

75
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2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
Biophysics	05	--	80	--	20	100
Biotechnology	21	--	34.14	36.58	29.28	100
Botany	09	--	66.66	11.11	00	77.77
Geology	20	15	70	05	--	90
Microbiology	20	--	20	60	--	80

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

The IQAC ensures the following

- Time table is strictly followed
- Teaching record and teaching plan is prepared by the faculty
- Student feedback is obtained
- The self appraisal report of the faculty is evaluated and necessary action is implemented

2.13 Initiatives undertaken towards faculty development 01

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	01
UGC – Faculty Improvement Programme	--
HRD programmes	--
Orientation programmes	--
Faculty exchange programme	--
Staff training conducted by the university	--
Staff training conducted by other institutions	--
Summer / Winter schools, Workshops, etc.	--
Others	--

## 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	16	03	13	00
Technical Staff	13	01	12	00

## Criterion – III

### 3. Research, Consultancy and Extension

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

- The staff members are encouraged to submit research projects to various funding agencies, pursue research work, and publish papers in peer reviewed and refereed journals participate in and organize conferences.
- The guest lectures by eminent persons are arranged to keep the students abreast of the current developments in the subject.
- Study tours and industrial visits are organized in order to acquaint the students with the application of their theoretical knowledge

#### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	NIL	03	NIL	2
Outlay in Rs. Lakhs	--	21,91,000	--	24,00,000

#### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	02	02	--	--
Outlay in Rs. Lakhs	1,55,000	3,35,000	--	--

#### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	11	13	--
Non-Peer Review Journals	--	--	--
e-Journals	--	--	--
Conference proceedings	--	--	--

#### 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	2011-14	UGC	7,91,000	4,74,800
	2012-14	DST	3,50,000	3,00,000
	2011-14	DST	17,88,000	3,00,000
Minor Projects	2010-12	UGC	2,00,000	64,000
	2012-14	UGC	1,35,000	91,000
Interdisciplinary Projects	--	--	--	--
Industry sponsored	--	--	--	--
Projects sponsored by the University/ College	--	--	--	--
Students research projects <i>(other than compulsory by the University)</i>	--	--	--	--
Any other(Specify)	--	--	--	--
Total	--	--	32,64,000	12,29,800

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	--	--	01	--	03
Sponsoring agencies	--	--	UGC, New Delhi	--	UGC XI Plan, New Delhi

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  Management of University/College   
Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	--
	Granted	--
International	Applied	--
	Granted	--
Commercialised	Applied	--
	Granted	--

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
	--	--	--	--	--	--

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

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

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

JRF  SRF  Project Fellows  Any other

3.21 No. of students Participated in NSS events:

University level  State level   
National level  International level

3.22 No. of students participated in NCC events:

University level  State level   
National level  International level

3.23 No. of Awards won in NSS:

University level	<input type="text" value="--"/>	State level	<input type="text" value="--"/>
National level	<input type="text" value="--"/>	International level	<input type="text" value="--"/>

3.24 No. of Awards won in NCC:

University level	<input type="text"/>	State level	<input type="text"/>
National level	<input type="text"/>	International level	<input type="text"/>

3.25 No. of Extension activities organized

University forum	<input type="text" value="--"/>	College forum	<input type="text" value="--"/>		
NCC	<input type="text" value="--"/>	NSS	<input type="text"/>	Any other	<input type="text" value="--"/>

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

- The Institute has an NSS unit which is active since many years. The NSS unit conducts social and community services through NSS camps in and around Aurangabad city.

## 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	25		State Govt.	25
Class rooms	10		State Govt	10
Laboratories	15		State Govt	15
Seminar Halls	02		State Govt	02
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	05		State Govt	05
Value of the equipment purchased during the year (Rs. in Lakhs)	10,91,625		State Govt	10,91,625
Others				

#### 4.2 Computerization of administration and library

The administration section is partially computerized and therefore computerized mechanism is used for administration and process of admission.

#### 4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	6360	1930091	123	129094	6483	2059185
Reference Books	22051	1342082	38	120104	2089	1462186
e-Books	N-List 93000	5000/yr	N-List 93000	5000/yr	N-List 93000	5000/yr
Journals	28	483216	--	--	28	483216
e-Journals	N-List 4137	5000/yr	N-List 4137	5000/yr	N-List 4137	5000/yr
Digital Database	--	--	--	--	--	--
CD & Video	77	--	--	--	77	--
Others (specify)	--	--	--	--	--	--

#### 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	86					09	76	01
Added	--					--	--	--
Total	86					09	76	01

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

The teachers have basic knowledge of computer operation and all teachers have qualified MH-CIT exam conducted by Government of Maharashtra. The computers are used by the students for preparing presentations and to obtain information from internet. Internet facility is available twenty four hours free of cost. Log books are maintained to record the usage of these facilities.

#### 4.6 Amount spent on maintenance in lakhs :

i) ICT

28,625

ii) Campus Infrastructure and facilities

47,10,000

iii) Equipments

66,430

iv) Others

--

**Total :**

48,05,055

## Criterion – V

### 5. Student Support and Progression

#### 5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Library services are made available for extended hours.  
Pre university examinations are conducted.  
Committee is constituted for facilitating scholarship to the students.

#### 5.2 Efforts made by the institution for tracking the progression

Institute has constituted separate committees to cater different support activities.  
Result record is maintained and analysed.



5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
	176	26	202

(b) No. of students outside the state

04
----

(c) No. of international students

01
----

Men

No	%

Women

No	%

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
74	39	02	34	00	163	88	36	02	35	00	176
DNT	NT	EB C	SBC			DNT	NT	EB C	SBC		
01	12	00	01			00	15	00	00		

Demand ratio

Dropout % 00

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

NET/SET coaching organized under UGC XI plan for students belonging to SC/ST/OBC and Minority.
--

No. of students beneficiaries

All
-----

5.5 No. of students qualified in these examinations

NET	<input type="text" value="01"/>	SET/SLET	<input type="text"/>	GATE	<input type="text" value="04"/>	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

- Regular meetings of students and teachers are held in the Departments wherein the guidance and counselling is done.
- The various activities are organized by the Institute to enable the students to develop certain skills Viz. Research projects,
- The students are provided an access to the computers in the department where they are guided by the teachers for various aspects like in the art of preparing power point presentation for the seminars, preparing posters for participation in conferences etc.
- Guidance is also given to the students for preparation of competitive examinations like NET/SET/GATE etc.
- The staff members provide academic and personal counseling to the students as and when needed.
- The students are guided and encouraged in availing facilities like e-journals, sophisticated instruments and bioinformatics software and statistical software skills

No. of students benefitted

## 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
01	20	04	25

## 5.8 Details of gender sensitization programmes

Programs were organized under "Equal opportunity to all" under the aegis of UGC XI plan.  
One week SAM women Workshop for development of women staff at higher level under the aegis of UGC, New Delhi

## 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		
Financial support from government	65	1,89,625
Financial support from other sources		
Number of students who received International/ National recognitions		

5.11 Student organised / initiatives

Fairs : State/ University level  National level  International level

Exhibition: State/ University level  National level  International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed NIL

## Criterion – VI

### **6. Governance, Leadership and Management**

6.1 State the Vision and Mission of the institution

<p><b>Vision Statement: ACCELERATING SCIENCE EDUCATION FOR HUMAN WELFARE OR ACCELERATING SCIENTIFIC TEMPERAMENT FOR HUMAN WELFARE (ENDEAVOUR)</b></p> <p>To be a world class Science Institution, pursuing for academic and scientific excellence, catering to the needs of global community, striving for its harmonious development by inculcating life-long learning skills to serve for the socio-economic development having concern for ecology and social harmony.</p> <p><b>Mission Statement</b></p> <ul style="list-style-type: none"> <li>• To develop citizens with scientific temperament, moral and ethical values and multifaceted proactive personality by providing quality education.</li> <li>• The Institute will opt for autonomy.</li> <li>• The Institute will evolve system(s) to provide quality education to suit local, regional, National needs and needs that will arise due to globalization.</li> <li>• The Institute will grow in multi-directions with innovative approaches to serve community at large in front line areas in this new millennium in the field of Science and Technology.</li> <li>• The Institute will provide practical based training to cater the needs of the industries.</li> <li>• The Institute will develop and strengthen industry-Institute participation directly in teaching-learning processes and financial aspects of the Institute.</li> </ul> <p>The Institute will start the new departments that will suit its goals, mission and objectives.</p>
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## 6.2 Does the Institution has a management Information System

Nil

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

### 6.3.1 Curriculum Development

- The institute follows the curricula approved by affiliating university.
- Most of our faculty, being the members/chairman of University Board of studies/Ad-hoc Boards, are framing the syllabi for courses offered
- Faculty regularly revises the syllabi with latest updates.

### 6.3.2 Teaching and Learning

- The infrastructural facilities (class rooms, laboratories, girls' common room, wash rooms, staff rooms, seminar halls, etc.) in every Department are in tune with norms prescribed by the UGC. In addition, the Departments have basic to advanced infrastructural facilities such as ICT facilities, laboratory equipment, Departmental library, meeting rooms, special instrumentation room, inoculation room, chemical rooms, Departmental stores room, etc. in order to ensure hassle-free and effective teaching-learning atmosphere. The Institute is connected through Virtual Classroom Network with its sister Institutes in Mumbai and Nagpur. The provision for ICT enabled advanced audio-visual tools, interactive board etc. are being procured and erected under DST-FIST program.
- Institute also achieves quality improvement by organizing lectures and seminars for teachers and students by eminent alumni, technical experts, academicians and administrators from industries/organizations

### 6.3.3 Examination and Evaluation

- Affiliating university conducts the final examinations as per prescribed norms.
- Institute has designed and implementing continuous evaluation during curriculum

### 6.3.4 Research and Development

- Teachers are provided with essential laboratory and library facilities for upgrading their knowledge and carrying out research. They are also encouraged to seek funds from various funding agencies and interact with scientific community through presentation of their research work at conferences, seminars, symposia and workshops.
- Teachers are encouraged to participate in training programs which help in grooming their academic and administrative skills.
- The Institute encourages faculty members to visit foreign countries for academic and research accomplishment and for presenting their research work in International Conferences abroad and recommends names of such faculty members to the Department of Higher Education, Pune for Government permissions.

### 6.3.5 Library, ICT and physical infrastructure / instrumentation

- Teachers are provided with essential library facilities for upgrading their knowledge.
- Online subscription of books and journals is made available through UGC-INFLIBNET to keep the academia abreast of latest literature.

### 6.3.6 Human Resource Management

- Teachers are motivated to enhance their qualities through attending refresher courses, orientation programs, departmental training programs, summer schools, administrative training, short-term training programs, etc. which helps in grooming up their academic and administrative skills.
- Teachers are entrusted with certain duties and responsibilities in addition to the regular teaching and research activities which has resulted in honing their multitasking abilities. Accordingly various committees like Women Grievance Redressal Cell, staff and student grievance redressal cell, anti-ragging committee, Placement & Training Cell, Student Counseling Cell, and Admission Committee, Student Council Committee, Affiliation committee, Prospectus committee, Purchase committee, Scholarship committee, Hostel committee etc. have become instrumental with the help of faculty.
- The non-teaching staff is motivated to attend short term training programs such as those related to the use of computers, etc. They are encouraged to make use of computers and internet facility for administrative

### 6.3.7 Faculty and Staff recruitment

- The faculty & staff recruitment is as per the norms and procedures of UGC & Government Of Maharashtra

### 6.3.8 Industry Interaction / Collaboration

- The Institute interacts fruitfully with industries through Placement & Training Cell and consultancy-extension services. This has resulted in significant number of students getting recruited in industries through on-campus and off-campus interviews.
- The Institute regularly invites experts from industries for invited talks and academic interactions with students and faculty members so as to tune up the human resource with present trends in the industrial sectors.
- The alumni working in various industries share their experiences with the students of the Institute and guide them in building the career.
- Educational tours/industrial visits are organized for exposing the students to the latest industry trends.
- The Institute encourages and recommends M.Sc. Part I students to participate in Summer Projects in industrial units during summer vacations. This helps enriching their exposure to in-plant conditions and enhances their prospects in employment.
- The Institute has designed Skill Development Modules based on requirement of the industries to create skilled manpower customized to job requirements in the industries.
- Suggestions from industry are invited and included during revisions in the curricula.

### 6.3.9 Admission of Students

- Advertisements are made in newspapers and on the Institute Website.
- Admissions are processed following rules and regulations of affiliating university

### 6.4 Welfare schemes for

Teaching	Co-operative society
Non teaching	Co-operative society
Students	---

### 6.5 Total corpus fund generated

### 6.6 Whether annual financial audit has been done Yes

No

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic			Yes	DHE, Pune
Administrative	Yes	A.G. office & J.D H.E Aurangabad		

### 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?

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

### 6.11 Activities and support from the Alumni Association

- Each Department has a database of alumni and organizes meetings with the alumni.
- A unique activity is initiated as Alumni lecture series (GISA initiated alumni lecture series) wherein alumni of the institute who have made marks in various walks of life are invited to deliver lectures and have a dialogue with the students about the contribution of the Institute in building their career. This helps to motivate the students.
- The Alumni are invited to share their expertise and deliver some lectures from academic curriculum.
- Alumni activities and support to the Institution and each individual department include announcements and communications about new openings and opportunities available at different institution and industries they are attached with, thus acting as a bridge for ensuring the placement of fresh postgraduates.
- Alumni support Training and Placement Cell in organizing campus interviews, recruitment and offering summer training etc.

### 6.12 Activities and support from the Parent – Teacher Association

- Parent-teacher association is yet to be established in the Institute. However, parents are invited for feedback on the curriculum. Parents and teachers meet regularly and parents are kept apprised of the Departmental and Institutional activities.
- Each year parents' meet is held in all the Departments. During the meetings, the students, their parents, Director of the Institute, Heads of the Departments and faculty members have a healthy interaction cum discussion on different issues concerning overall improvement and sustenance of quality in the education being imparted through the different courses in the Institute. A suggestion book is maintained for recording the views of the parents. Teachers give regular feedback to parents regarding the progress of students.

### 6.13 Development programmes for support staff

- The non teaching staff members are motivated to use computers for the maintenance of the records, admission process and other departmental work.
- They are encouraged to participate training programs.

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

- Tree plantation programs are organized.
- Campus cleaning programs are organized.
- The Institute has adopted several practices for energy conservation such as minimizing use of energy intensive devices, use of power saving devices, solar equipment and pooling the work elements that are energy intensive. The Institute makes use of power saving CFL bulbs for illumination purposes, LED computer monitors and energy saving air conditioners/refrigerators, solar water distillation plant and solar water heater, etc.
- The NSS unit of the Institute has constructed “*VanaraiBandhara*” (check dam) in order to prevent wastage of water and to aid the increase in the water level. The tree plantation activities are also carried out.
- The Institute staff makes minimal use of paper and green-house gas emitting devices.
- Instruments beyond repairs are being processed for write-off procedures as per the Government norms.

## 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.

- The students and Staff are encouraged for participate in Conference/Workshops/Symposiums so as to have academic exposure to latest trends in Science.
- Library access to students beyond office hours during exams for better preparation.
- Parents Meet is conducted periodically.
- Regular guidance for different competitive exams is given.
- The modern techniques are used for teaching and learning process.
- The social responsibilities are imbibed in the students. The relevant programs are organized by the NSS unit.
- Researchers from other Institutions are allowed to use laboratory and library facilities in the Institute.
- Analytical facilities and consultancies are provided free of cost to Researchers from other Institutions
- Students are guided and motivated to prepare concise but in-depth descriptive cards of terms/concepts pertaining to the syllabus, now popular as the “R R Pattern”.

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

- The faculty members are involved in the framing and revision of syllabus as a part of various committees in the University
- The staff members are encouraged to submit research projects to various funding agencies, pursue research work, and publish papers in peer reviewed and refereed journals participate in and organize conferences.
- The Placement and training cell established to offer career guidance to the students and to co-ordinate with the Institutes and Industries for arranging in campus or off campus interviews.
- The faculty members participated in refresher courses
- The guest lectures by eminent persons are arranged to keep the students abreast of the current developments in the subject.
- Study tours and industrial visits are organized in order to acquaint the students with the application of their theoretical knowledge.

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

#### **Best Practice 1**

**1. Title of the Practice**

Providing Experiential Training to the students

**2. Goal**

The Institute nurtures the students in highly interdisciplinary areas of life/biosciences and Earth sciences. Hence, it is essential that in addition to their classroom and laboratory training in the concerned subjects, the students should have an exposure to real world/on-site scenarios to develop integrative approach/strategy and imbibe application oriented approach. The Institute therefore encourages experiential training through arranging various activities, viz. summer projects, industrial trainings, independent handling of research projects, self-designed seminars, participation in National and International conferences, field visits, mine training, hospital demonstrations, industry/institute visits,



etc. Competitive exam skill development initiatives and guidance by alumni/invited experts prepare the students for qualifying National level competitive tests.

### **3. The Context**

The students admitted in the Institute are mostly from educationally under privileged Marathwada region. They are unaware of their in-built talent and skills. Due to the lack of academic exposure they cannot decide about their career goals and the utility of the subject in which they are trained. Moreover, the students are reluctant in opting the academic career through National/Global level competitive examinations. The Institute has developed extensive pre-admission counseling mechanism to reduce/remove the fear and phobia about higher studies and assist in choice of subject at M.Sc. level. Mere classroom teaching does not effectively eliminate the senile attitude towards their career honing. Therefore the Institute has seriously addressed this problem by designing multi-directional approach that caters self-learning; developing interest, using interdisciplinary, integrative and object-oriented strategy in learning; broadening of knowledge grasp; analyzing situations and inculcating problem solving/solution finding attitude.

### **4. The Practice**

- Explaining concepts orally to audience facilitates a deeper understanding of the subject. Knowledge dissemination always catalyzes the knowledge grasp. Keeping this in mind, the Institute motivates the students to design and deliver information/concept-based seminars during their curriculum. The display of synopsis, presentation skeleton, overall organization of the seminar events, evaluative feedback/interactive discussion is completely managed by the students which self-mentor their leadership qualities.
- The linkage between classroom learning and field-experience is established through regular visits to industries, research institutes, hospitals, mines, field visits, etc. Here, the students explore new dimensions in the practical application of the subject knowledge. Exhaustive interactions on varied queries by the students with field experts stimulate thirst for learning.
- The Institute strongly believes in enrichment of teaching-learning process using research based approach in concerned subjects. As a consequence the students are allotted with mini-research projects as a part of academic curriculum. Students develop research aptitude by familiarizing with research methodology, analytical tools, data analysis, interpretation skills and presentation skills while implementing these projects independently.
- Students are motivated to undertake summer projects/in-plant training in various organizations/industries/research laboratories outside the Institute, to give them first-hand experience of the organizational settings. They get familiarized with latest trends, quality principles, processing techniques, instrumentation, need for documentation and documentation procedures.
- Students participate enthusiastically in National and International conferences, present research papers/posters, interact with the scientific community and develop contacts that may be useful in their future endeavors. This helps in building up their confidence, will-power and morale.
- Real life/on-site experiences shared by the invited experts, faculties, scientists, entrepreneurs, industry personnel and our alumni with our students culminate in imbibing ethical values and personality traits viz. pride towards the Institute, down-to-earth analytical approach, methodologically buffered strategy, descriptive & illustrative approach.
- Exam skill and experience sharing by alumni who have successfully qualified the competitive examinations developed a positive attitude amongst the students. Students have since then opted enthusiastically to appear in the NET/SET/GATE and other competitive examinations.

### **5. Evidence of Success**

- Seminars presentations have enriched the qualities within the students, viz. gathering the information, designing the talk/presentation, preparing the display slides using computers, co-assisting the presentations with animations, simulating examples, boldness, confidence, clarity of thoughts, integrating information and logic of bridging the concepts, communication skills, analyzing the questions raised and giving appropriate answers, effective use of audio-visual devices and white-board. As a result students could confidently present papers in conferences and interact with scientific community.

- The knowledge acquired through field exposures, summer projects and research projects could successfully amalgamate the theoretical concepts with practical utility which further assisted them in diagnosing and curing the problems/challenges faced in actual work environment. As a result students had a chance to be in vicinity with National and Global experts in research laboratories/industries from whom they could build their personality and contribute significantly to the growth of their organizations. The coveted positions held by alumni highlight the result of these efforts.
- Moral boosting lectures by alumni/invited experts sharing real life/on-job experiences has thoroughly revolutionized the students' mind with strong will to undertake/handle tough challenging situations. The students visualize & follow these mentors as their Role Models and as a result there is boost in the placement percentage within last couple of years.
- The in-house coaching for competitive examinations has yielded success to several students in opting and tackling the National level competitive examinations.

#### **6. Problems Encountered and Resources Required**

- The weak academic background and fear within the students poses challenge for the mentoring process. The challenge is further enhanced in case of the economically weaker sections of the students. The strong counseling with little financial assistance at the personal level circumvents these difficulties to certain extent favoring the mentoring process.
- The weak communication abilities consequently leading to shyness within the students was another hurdle in the teaching-learning. The faculty members devoted extra time in building up the communication ability and curb the shyness. The family-like and congenial atmosphere maintained within the Institute further catalyzes the mentoring process.
- Owing to low budgetary provisions, the Institute cannot support economically weaker students for participating in out-station co- and extra-curricular activities. Separate provisions of finances would certainly boost the participation.
- Student-centric activities enlisted in the "Goals" above, if supported with additional financial assistance, can capture momentum and can be extended to needy students from other Institutions as well.

**7. Notes (Optional)** Nil

#### **8. Contact Details**

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Name of the Institution: Government Institute of Science

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## Best Practice 2

### 1. Title of the Practice

Nurturing value-based education, social responsibilities and good citizenry

### 2. Goal

With an aim of carving value based education and social awareness amongst the students and faculty extension and information dissemination to the community, the Institute has launched various programs, viz. women empowerment program; “*JagarJanivancha*”; special day programs; blood donation camps; awareness and conservation programs for clean and green environment inclusive water conservation and ecofriendly aspects- tree plantation, check dam construction, solid waste treatment and nutrient recycling; inculcation of value based education, socio-sensitivity, and faculty extension services like soil analysis, ground water exploration and testing, gamma irradiation, providing microbial cultures as well as popularization of science; voter awareness campaigns.

### 3. The Context

The Institute being a Post Graduate and Research Organization caters the academic needs of the region. In addition to academics, the societal components also expect creation of sensible human resource with high human values and sensitivity towards social climate as well as science-based extension services. In order to bridge the gap between academic training and the societal expectations, the Institute has structured multi-faceted programs that cater socio-sensitivity, environmental awareness and ethical values. In addition, the Institute takes the responsibility to extend the available facilities and expertise to community welfare and nurture scientific temper amongst the community through science popularization programs.

### 4. The Practice

- Conserving the green areas of the Institute campus to preserve and protect the large number of bird and animal species while ensuring neat, clean and green environment.
- The campus waste is converted into Organic Manure through composting and vermin-culture and is used for gardening and *in-campus* plantation.
- The Institute has conducted numerous community programs within and out of Aurangabad city to create awareness about Solid Waste Disposal.
- Research projects are undertaken with the view towards remedial treatment of toxic and hazardous industrial wastes using microbial and nanotechnology based methods.
- The faculty members have carried out extensive work on the biodegradation and conservation of historical monuments viz. Ajanta and Aurangabad Caves.
- The Institute provides extension services to the community for routine analysis of water to ensure a healthy community and environment.
- Under the umbrella of the NSS, Institute carries out various environment related activities such as Tree Plantation within and out of the Institute campus, street plays, construction of check dam for water conservation, etc. The Institute has adopted several practices for energy conservation such as use of power saving devices, solar equipment, etc. The Institute organizes guest lectures and poster presentations to stress the important environmental issues and the need to conserve energy, biodiversity and the environment.
- The Institute runs programs such as adoption of villages for tree plantation advocating avoidance of using of pesticides, using organic manure, lectures by experts for rain water harvesting, etc.
- The NSS unit also organizes blood donation and health awareness camps.
- Students voluntarily participated in Disaster Management Relief Fund by fully donating Annual Gathering funds to Tsunami Victims.
- “*JagarJanivancha*”, a special lecture series aimed towards inculcating sensitivity and courageous attitude to address societal problems and illiteracy among women was organized by the Institute.
- Enrichment of managerial qualities amongst women was the main aim in hosting a week-long workshop on Women Empowerment under the aegis of UGC.
- In order to pay tributes to National personalities and inculcate the feeling of National Pride and social responsibility, special day programs are organized.
- The Institute extends some facilities and scientific expertise to community. These facilities include soil analysis, ground water exploration and testing, gamma irradiation and supply of microbial cultures to college teachers, researchers and industry.

- The Institute being scientific avenue, dissemination of scientific information to the masses is practiced through mass communication media (radio talks), newspaper articles and organizing National Science Day programs and contribution of faculties as resource persons.
- The Institute actively participates in launching Voter Awareness Campaign at the time of general elections.

#### 5. Evidence of Success

- The overall environmental awareness and a strong ecofriendly attitude were imbibed amongst the students. Students could learn composting method and conservation practices for keeping the environment clean and green.
- The Institute received appreciation for the effective implementation of solid waste disposal methods, preservation of cultural heritage and city farming programs organized in community places such as jails, temples, co-operative housing societies, schools, etc.
- The research papers published and presented in scientific congregations have provided additional information content in terms of environmental remediation. Students were equipped with the tools and techniques to develop sustainable and eco-friendly processes and products.
- The community was benefitted through the extension services.
- Tree plantation, check dam construction and CCT activities have created awareness about soil and water conservation.
- The Institute successfully conveyed the importance of avoiding pesticides, use of organic manure and rain water harvesting to the villagers under village adoption programs.
- The awareness about health and precious lives was effectively conveyed through health awareness and blood donation camps.
- Women empowerment program, special day programs, “*JagarJaniwancha*” and voters awareness campaign have conveyed the message of gender equality, support and respect for women, National pride and social rights and responsibility.
- The Institute has profoundly contributed in popularization of science through various activities and expert lectures benefitting the schools, colleges and general public.

#### 6. Problems Encountered and Resources Required

- The students and faculty members being engaged full-time in lectures, practical, projects and mentoring for research, the major limitation to the implementation of these extra-curricular activities is time availability.
- Lack of financial aid for village adoption and other community services was another major obstacle in implementation of these programs.

#### 7. Notes (Optional)

Nil

#### 8. Contact Details

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#### 7.4 Contribution to environmental awareness / protection

- Tree plantation programs are organized.
- Campus cleaning programs are organized.
- The Institute has adopted several practices for energy conservation such as minimizing use of energy intensive devices, use of power saving devices, solar equipment and pooling the work elements that are energy intensive. The Institute makes use of power saving CFL bulbs for illumination purposes, LED computer monitors and energy saving air conditioners/refrigerators, solar water distillation plant and solar water heater, etc.
- The NSS unit of the Institute has constructed “*VanaraiBandhara*” (check dam) in order to prevent wastage of water and to aid the increase in the water level. The tree plantation activities are also carried out.
- The Institute staff makes minimal use of paper and green-house gas emitting devices.
- Instruments beyond repairs are being processed for write-off procedures as per the Government norms.

7.5 Whether environmental audit was conducted? Yes  No

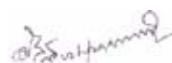
7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

#### **8.Plans of institution for next year**

- To implement effective counselling for filling up all the seats of 1<sup>st</sup> year admission.
- To provide mentoring/guidance to students for appearing and qualifying various kinds of competitive examinations.
- To arrange expert lectures by alumni and adjunct faculty.
- To encourage the students in applying for summer projects at different national institutions
- To stimulate students for participation and presentation at National and International conferences/workshops/symposia.
- Designing and implementation of different activities aimed at improvement of student skill and knowledge through invited talks from industry and academia.
- Arranging and execution of study tour for keeping abreast with recent trends across fields related with the subjects taught.
- Active promotion of student participation in summer trainings, National/International symposia, conferences and workshops.
- Development and promotion of placement cell for ensuring jobs to the students immediately on completion of course.
- Encouraging students to publish papers related to their dissertation in renowned National/International journals.
- Building and sustenance of platform for interaction of different stake holders associated with the Institute.
- Organization of a National conference with UGC funding.
- Strengthening linkages between academics and industrial organizations.

Name: *Dr. A. V. Pethkar*

Name: *Dr. R. R. Deshpande*



Signature of the Coordinator, IQAC

Signature of the Chairperson,

IQAC \_\_\_\_\_ \*\*\* \_\_\_\_\_