



**GOVERNMENT OF MAHARASHTRA**  
**INSTITUTE OF SCIENCE**

(Affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad)

Nipat Niranjan Nagar, Caves Road,  
Aurangabad- 431 004, Maharashtra

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**ANNUAL QUALITY ASSURANCE REPORT**

**2005-2006**

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*Submitted To*

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**(An autonomous institution of University Grants Commission)**

P. O. Box No. 1075, Opp. NLSIU, Nagarbhavi, Bangalore – 5600 072,

Karnataka



# Annual Quality Assurance Report (AQAR) of the IQAC

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Academic Year  
2005-2006

## PART – A

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

The Institute underwent accreditation process in the month of June 2004 and received the 'B++' grade from the National Assessment and Accreditation Council, Bangalore. After taking stock of the suggestion made by the NAAC committee, the IQAC decided to consolidate the gains made and work on the following areas:

1. Foster goals and objectives of the Institute with implementable solutions.
2. Encourage the faculty members to contribute to syllabi designing and revision.
3. Enrich the "Guidance and Counseling 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.
4. Motivation of the teaching staff in faculty development programmes.
5. Organize and encourage participation of faculty and students at seminars/workshops/conferences.
6. Focus on research activities to be carried out by staff and students.
7. Provide consultancy services to industries and institutions.
8. Motivate faculty members and students to participate in extension activities and community services.
9. Provide library facilities such as reading room for students and staff, separate newspaper reading facility, open access facility and purchase of new books and journals.
10. Computerization of administration and admission process.
11. Inviting experts from various fields and alumni for guest lectures, seminars, workshops, conferences, competitive exam guidance, arrangements for summer trainings, industry visits, etc.
12. Submission of proposal to the Public Works Department, Government of Maharashtra, for repairing and maintenance of buildings, laboratories and campus facilities.
13. Create health awareness amongst the students.
14. Encourage the students to participate in co- and extra-curricular activities.

## **PART-B**

### **PART B – 1: Activities reflecting goals and objectives of the Institution**

1. Faculty members contributed to syllabi designing and revision.
2. The “Guidance and Counseling Cell” was set up 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.
3. The teaching staff has participated in different faculty development programmes.
4. Organization of seminars/workshops/conferences at the state and national level
5. Organization of workshops/training programmes/computer training for students and staff at the Institute level.
6. The students have carried out research work under the guidance of faculty members. The faculty members have published the work in journals/ books.
7. The Institute has provided consultancy services to industries and institutions.
8. Faculty members and students have participated in extension activities and community and health services.
9. Library facilities such as reading room for students and staff, separate newspaper reading facility and free internet facility in library, open access facility were provided.
10. The administration and admission processes were computerized.
11. Experts from various fields and alumni were invited for guest lectures, seminars, workshops, conferences, competitive exam guidance, arrangements for summer trainings, industry visits, etc.
12. The proposal was submitted to the Public Works Department, Government of Maharashtra, for construction of road from boys’ hostel to library building.
13. The students participated in various health-related activities for social cause.
14. The students participated in various co-curricular and extracurricular activities and rewarded for their performance.

### **PART B – 2: New Academic programmes initiated (UG and PG)**

- Nil

### **PART B – 3: Innovations in curricular design and transaction**

The members of the Teaching Staff of the Institute hold responsible positions in University committees, where-in based on important decisions taken, contribute to value addition in the teaching-learning process. A list of staff members serving on University committees is given below:

Dr. S. G. Gupta, Chairman, Ad-Hoc Board, Microbiology  
 Dr. S. G. Gupta, Chairman, Ad-Hoc Board, Biotechnology  
 Mr. S.G. Kulkarni, Chairman, Ad-Hoc Board, Biophysics  
 Dr. S.M. Deshpande, Chairman, Ad-Hoc Board, Geology  
 Dr. Mrs. S. M. Dharmadhikari, Member, Ad -Hoc Board, Microbiology  
 Dr. S. A. Peshwe, Member, Ad-Hoc Board, Biotechnology

All the above mentioned staff members were members of committees constituted for the purpose of framing syllabi of the respective PG programs.

#### **PART B – 4: Interdisciplinary programmes started**

The subjects in which PG education and research is implemented in this Institute are interdisciplinary in nature. The subject content of M.Sc. courses include the interdisciplinary and application-based approach. Students can register for Ph.D. in Biotechnology under the interdisciplinary Ph.D. programme.

#### **PART B –5: Examination reforms implemented**

- The examination reforms are under the purview of the University.
- Revised syllabi of various subjects were implemented as per the guidelines of the University. The examinations were conducted according to the pattern prescribed by the University.

#### **PART B – 6: Candidates qualified: NET/SET/ GATE etc.**

Name of examination	Number of qualified candidates
NET	-----
SET	02
GATE	----

#### **PART B – 7: Initiative towards faculty development programme**

- Participation of faculty members in various training courses / refresher courses

Sr. No.	Name of faculty member	Department	Faculty development program
1.	Ms. S. S. Farooqui	Microbiology	Refresher course at Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
2.	Dr. Mrs. S. M. Dharmadhikari	Microbiology	Refresher course at Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
3.	Dr. S. A. Peshwe	Microbiology	Refresher course at Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
4.	Mrs. V. N. Wadekar	Biophysics	Orientation course at Academic Staff College, University of Pune

5.	Dr. R. A. Satpute	Botany	Refresher course at Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
6.	Dr. S. M. Deshpande	Geology	Refresher course at Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

- Teachers pursuing Ph.D.

Sr. No.	Name of Faculty member	Department	Year of Registration
1.	Mrs. A. S. Vinchurkar	Biophysics	1987
2	Ms. Shahnaz Farooqui	Microbiology	1993
3	Ms. P. N. Puthan	Microbiology	1993
4	Mrs. S. K. Jangam	Microbiology	2000

- Teachers as conveners /resource persons:

Ms. S. S. Farooqui worked as the Convener of the Workshop on Environment Protection, sponsored by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

#### **PART B – 8: Total number of seminars / workshops conducted: 5**

- Workshop on Environment protection– sponsored by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- One day training for B.E. Civil Engineering students in the Geology Department.
- Practical Demonstration cum Training on “Bioinformatics Software” organized by Department of Biotechnology, and conducted by MASCOM Life Sciences, New Delhi.
- Practical Demonstration cum Training on “Bioinformatics Software” conducted by Mr. Virendra Gomase from Dept. of Biotechnology, Tatyasaheb Kore Institute, College of Engineering and Technology, Kolhapur in this Institute.
- Practical Training Programme on “Animal Cell Culturing” organized by the Department of Biotechnology in Association with R&D, Wockhardt Research Center, Aurangabad.

#### **PART B – 9: Research Projects a) Newly Implemented b) Completed**

Sr. No.	Name of Investigator	Department	Funding Agency	Completed/ Newly implemented
1	Dr. Mrs. S. M. Dharmadhikari	Microbiology	UGC, WRO-Pune	Newly implemented

2	Dr. K. G. Joshi	Botany	BCUD, Dr. Babasaheb Ambedkar Marathwada University	Newly implemented
3	Dr. K. G. Joshi	Botany	UGC, WRO-Pune	Newly implemented

**PART B – 10: Patents Generated, if any**

- No patents were filed during this year.

**PART B – 11: New Collaborative Research Programme**

- No Collaborative Research Programs were initiated this year.

**PART B – 12: Research grants received from various agencies**

Sr. No.	Name of Faculty member	Funding Agency	Amount (Rs.)
1	Dr. Mrs. S. M. Dharmadhikari	UGC-WRO	49,000
2	Dr. K. G. Joshi	UGC-WRO	20,000
3	Dr. K. G. Joshi	UGC-WRO	58,200
	<b>Total</b>		<b>1,27,200</b>

**PART B – 13: Details of Research Scholars**

S. No.	Name of Research Scholar	Subject	Name of research Guide	Year of Registration/ Submission	Year of Award
1	Mr. Ashfaque M. Khan	Botany	Dr.Sahera Nasreen	2005	----
2.	Mr. Ghogre D.S.	Botany	Dr.R.A. Satpute	2003	---
3	Mr. Dhulgande G.S.	Botany	Dr. R.A. satpute	2003	---
4	Ms. R.S. Pandhare	Microbiology	Dr. S.G. Gupta	2004	----
5	Ms. S.A. Samrani	Microbiology	Dr. M.S. Andhale	2000	2006

6	Dr. Kranti Engade	Microbiology	Dr. S.G. Gupta	2000	2006
7	Ms. Abhay Kshirsagar	Microbiology	Dr.M.S. Andhale	2001	---
8	Ms. Sphurti Choudhary	Microbiology	Dr. M.S.Andhale	2000	---
9.	Mr. Bhagwat Choure	Botany	Dr. S.K. Markandey	2003	---
10	Mr.G.L.Pachkore	Botany	Dr.S.K. Markandey	2002	----
11.	Mr. Datta Dhale	Botany	Dr.S.K. Markandey	2004	---
12	Mr. Narendran	Botany	Dr.K.G. Joshi	2003	---

**PART B – 14: Citation Index of Faculty members and impact factor**

Sr. No.	Name of the faculty	Department	Impact factor	Citations
1	Dr. R. A. Satpute	Botany	-	-
2	Dr. S. G. Gupta	Microbiology	-	-
3	Dr. Mrs. S. M. Dharmadhikari	Microbiology	0.06	-
4	Dr. Mrs. S. A. Peshwe	Microbiology	0.06	-

**PART B – 15: Honours /Awards to the faculty NIL****PART B – 16: Internal Resources generated**

The following departments have rendered their services through analyzing and giving consultancy to various institutions and industries.

Sr. No.	Name of Department	Resource generated (Rs.)
1.	Biophysics	600
2.	Geology	2000
3.	Biotechnology	3000

**PART B – 17: Details of Departments getting SAP/COSIST/DST/FIST etc. assistance / recognition**

- Nil

**PART B – 18: Community services**

The institute has constituted NSS unit which conducted following activities with the participation of students and faculty members:

- Eradication of parthenium grass.
- District orientation camp at Hanuman Tekadi, Aurangabad.
- Special camp for water conservation and disaster management.
- Blood donation camp.

**PART B – 19: Teachers and Officers newly recruited**

- Dr. R. A. Satpute joined the Department of Botany, Govt. Institute of science, Aurangabad by transfer from Govt. College of Arts and Science, Aurangabad.

**PART B – 20: Teaching: Non-Teaching staff ratio**

- Number of teaching staff = 22
- Number of non-teaching staff = 17
- Ratio = 1.29: 1

**PART B – 21: Improvement in the Library Services**

The institute has made following arrangement for students and staff in the library:

- Separate spacious reading room facilities for students and staff.
- Separate newspaper reading facilities.
- Implementation of open access system of books and journals to all students.
- Display of newly purchased books, journals and periodicals in the “NEW ARRIVAL” section.

**PART B – 22: New books / Journals subscribed and their values**

Purchase of journal/ books	Total number of journals/periodicals	Cost in Rs.
Indian journals	20	22,634
Foreign journals	10	1,84,727.31
Books	103	1,01,217.5
Total	133	3,08,578.81

**PART B – 23: Courses in which student assessment of teachers is introduced and action taken on students feedback**

Student feedback is obtained for all the courses conducted in the Institute. Based on the feedback the specific issues were addressed with immediate effect



The teachers are assessed annually on the basis of the basis of the teaching record, attendance record, annual report and result record.

**PART B – 24: Unit cost of education**

Year	Student Intake	Unit cost with salary component (Rs.)	Unit cost with non-salary component (Rs.)
2005-06	184	43,478.26	11,413.04

**PART B – 25: Computerization of administration and the process of admissions and examination results and issue of certificates**

1. The administration section is partially computerized and therefore computerized mechanism is used for administration and process of admission.
2. Admission process is executed through computerization since 1992.
3. Examination process is under the purview of the affiliating University and it is computerized.

**PART B – 26: Increase in the infrastructural facilities.**

Sr. No.	Description of work	Expenditure (Rs.)
1.	Construction of tar road from Boys' Hostel to library building	10 lakh

**PART B – 27: Technology upgradation**

- Introduction of novel audio visual techniques in teaching

**PART B – 28: Computer and internet access and training to teachers and students**

- Computer training was made compulsory to the teaching and non-teaching staff.
- Common internet facility was made available in library.
- As a part of curriculum, students were trained in basics of computer education.

**PART B – 29: Financial aids to students**

The state government provides financial assistance for the students from weaker sections in the society such as the SC/ST/OBC and economically backward class. Approximately 50% of the students from M.Sc. course receive the scholarships and free ships. The institute facilitates disbursement of the financial aid from the government in the form of:

- Government of India Scholarship
- Government of India free ship
- Scholarship for economically backward (EBC) students
- Minority scholarship
- Scholarship for wards of Primary teachers (PTC)
- Scholarship for wards of secondary teachers (PTC)
- Merit scholarship

**PART B – 30: Activities supported by alumni association**

- Alumni employed at national and International institutions visit the Institute and mentor the students through guidance and share their experiences.
- The Alumni are invited to interact with students and faculty members to share their expertise, deliver lectures and suggest revisions in the syllabi.
- Alumni support students from our Institute in recruitments and summer trainings.

**PART B – 31: Activities in support from 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.
- Parents' – Teachers' meet was arranged in Biotechnology Department.
- The faculty members interact closely with the parents to appraise them about the progress of the students.
- Parents are invited for discussion or counseling in order to find solutions for problems faced by individual students.

**PART B – 32: Health Services**

The health facility is available at all the Government hospitals. In addition, the students can visit DKMM Homeopathic Hospital which is adjacent to the Institute. Following programmes were organized to create health awareness and to provide essential health services to the students.

- Participation in pulse polio camp.
- Blood donation camp.
- AIDS awareness rally on International AIDS Day.
- AIDS awareness Day.
- Installation of First Aid Boxes in the Institute campus.

**PART B – 33: Performances in sport activities**

The College has adequate space and equipment for both indoor and outdoor sports.

- The students have participated in Table Tennis at University level.

**PART B – 34: Incentives to outstanding sports persons**

Various sports events, viz. cricket, volley ball, chess, table tennis and badminton were organized during annual social gathering and outstanding students were rewarded for their performances.

**PART B – 35: Students' achievements and Awards**

- Students of all Departments secured top rank positions in University Merit Lists.
- Students volunteered in NSS activities throughout the year.
- Ms. Jaiswita Mohite, student of Biophysics Department qualified pre-exam for police sub-inspector.

- Mr. Ratnesh Mantri, student of Biotechnology Department was awarded second prize in essay competition conducted by MSEB, Aurangabad and consolation prize in essay competition conducted by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Mr. Pramod Kumar, student of Biophysics Department was awarded the Gold Medal for best research publication at Post Graduate Institute of Medical Research, Chandigarh.
- Mr. Srijob Banerjee, student of Biophysics Department was selected as JRF at international atomic energy agency, Geneva.
- Students Participated in National Science Week celebrations organized in the Institute and displayed exhibits and working models in the science exhibition.
- Students of Microbiology Department received the 1<sup>st</sup> prize of Rs. 2000/- in still model category during National Science Week.
- Ms. Dipti More, student of Microbiology Department received a cash prize of Rs. 3000/- in cartoon competition during International symposium on Phytopharma, Aurangabad.
- Two students Microbiology Department received the First Prize in Regional Debate Competition held at Dnyasopasak Mahavidyalaya, Parbhani.
- Mr. Sumeet More of Microbiology Department received the First Prize in NSS camp held at the Institute of Science, Aurangabad.

#### **PART B – 36: Activities of the guidance and counseling unit**

- The students were provided with information regarding admissions and counseling is done at the start of every academic year. Counseling throughout the year to explain the scope, applicability and opportunity in the concerned subjects.
- Students are guided for different competitive exams.
- Woman's Redressal cell was established to address girl students' problems and counseling.

#### **PART B – 37: Placement services provided to students**

- The students were provided with guidance for getting good placements in different industries as well as various government organizations.
- The Guidance and recommendations were provided to the students for joining different organizations for summer trainings and placements.
- The copies of employment advertisement have been displayed throughout the year for providing assistance in placements.

#### **PART B – 38: Development programmes for non-teaching staff**

- The non-teaching staff was encouraged to undertake the computer courses.

#### **PART B – 39: Healthy practices in the Institution**

- The Institute has motivated the students to organize programmes such as Annual Gathering, Science Day and Guest Lectures.
- Student's feedback mechanism was initiated to mobilize teaching-learning process.

- The Heads of departments and the Director of the Institute make frequent surprise visits to the classes to monitor the teaching
- Meetings are conducted among the Heads of the Departments and the Director of the Institutes to sort out any irregularities
- Microbiology and Botany departments provide microbial cultures free of cost to various colleges.
- Botany department offers services to the Government Forensic Laboratory.
- Summer trainings for students in various industries and organizations were organized.
- Student council is formed for welfare of the students.
- 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”.

#### **PART B– 40: Linkages with National/International, Academic/Research bodies**

- Links were established with different organizations for summer project/training

<b>Name of the student</b>	<b>Department</b>	<b>Name of the research institute</b>	<b>Duration</b>
Ms.Vrushali Muley	Biotechnology	NCL, Pune.	2 Months
Ms. Prajakta Kulkarni	Biotechnology	NCL, Pune.	2 Months.
Ms. Sheta Sakinala	Biotechnology	NIV, Pune.	2 Months.
Mr. Abijeet Satvekar	Biotechnology	NIO, Goa	2 Months.
Ms. Vanita Chavan	Biotechnology	NIO, Goa	2 Months.
Mr. Shailesh Darakh	Biotechnology	BARC, Mumbai	2 Months.
Ms. Gayatri Bari	Biotechnology	Green Gold Seeds, Aurangabad	2 Months.
Ms. Kirti Muley	Biotechnology	Hindustan Antibiotics, Pune	2 Months.
Ms. Ashwini Shirure	Biotechnology	Vidya Pratishthan, Baramati	2 Months.
Ms. Vandana Dawre	Biotechnology	Vidya Pratishthan, Baramati	2 Months.
Mr. Prasanjeet Surwade	Biotechnology	Vidya Pratishthan, Baramati	2 Months.
Mr. Vinod Shahagadkar	Biotechnology	Vidya Pratishthan, Baramati	2 Months.
Mr. Arnab Pal	Biotechnology	Vidya Pratishthan, Baramati	2 Months.
Mr. Ratnesh Mantri	Biotechnology	Vidya Pratishthan, Baramati	2 Months.
Mr. Rupesh Tayade	Biotechnology	Vidya Pratishthan, Baramati	2 Months.

#### **PART B – 41: Any other relevant information the institution wishes to add**

- Dr. S. G. Gupta: Appointed as a member of editorial board of *Journal of Life Sciences* .
- National Science Day was celebrated under the aegis of National Council for Science & Technology Communication, Govt. of India and Rajiv Gandhi Science and Technology Commission, Govt. of Maharashtra. The theme of celebration was “Nurture the Nature for the Future”. Various events were organized during the celebration were seminar, science quiz competition, debate competition for school & college students, popular lectures, essay writing competition, Science & Technology Exhibition, street plays, etc.

## **PART – C: Outcomes achieved by the end of the year**

1. Faculty members contributed to syllabi designing and revision.
2. The “Guidance and Counseling Cell” was set up 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.
3. The teaching staff has participated in different faculty development programmes.
4. Organization of seminars/workshops/conferences at the state and national level
5. Organization of workshops/training programmes/computer training for students and staff at the Institute level.
6. The students have carried out research work under the guidance of faculty members. The faculty members have published the work in journals/ books.
7. The Institute has provided consultancy services to industries and institutions.
8. Faculty members and students have participated in extension activities and community and health services.
9. Library facilities such as reading room for students and staff, separate newspaper reading facility and free internet facility in library, open access facility were provided.
10. The administration and admission processes were computerized.
11. Experts from various fields and alumni were invited for guest lectures, seminars, workshops, conferences, competitive exam guidance, arrangements for summer trainings, industry visits, etc.
12. The proposal was submitted to the Public Works Department, Government of Maharashtra, for construction of road from boys’ hostel to library building.
13. The students participated in various health-related activities for social cause.
14. The students participated in various co-curricular and extracurricular activities and rewarded for their performance.

## **PART – D Detail plans of the institution for the next year**

1. Approaching towards goals and objectives of the Institute with implementable solutions.
2. Encouraging the faculty members to contribute to syllabi designing and revisions.
3. Motivation to the teaching staff in faculty development programmes.
4. Organization of and participation at seminars/workshops/conferences at the state and national level.
5. Focus on research activities to be carried out by staff and students.
6. Providing consultancy services to industries and institutions.
7. Motivating faculty members and students to participate in extension activities and community services.
8. Inviting experts from various fields and alumni for guest lectures, seminars, workshops, conferences, competitive exam guidance, arrangements for summer trainings, industry visits, etc.
9. Creating health awareness amongst the students.
10. To encourage students to participate in co- and extra-curricular activities.
11. To undertake efforts to submit research proposals to different funding agencies.
12. To organize Parents’-Teachers’ meet in the Departments for increasing interactions between the parents, teachers and students.