

# THE ANNUAL QUALITY ASSURANCE REPORT (AQAR) OF THE IQAC

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**Year of Report : 2008-2009**

**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**

1. Preparations are made to upgrade the Choice Based Credit System (CBCS).
2. Faculty members are encouraged to apply for more research grants.

## **Part-B**

### **1. Activities reflecting the goals and objectives of the Institution:**

- Organisation of conferences, workshops and seminars by various departments.
- Updating syllabus of various courses.
- Improving infrastructure facilities.
- Starting research in frontier areas.

### **2. New academic programmes initiated :**

Total number of programmes initiated : 7

- Details :
1. PG Diploma in Molecular Diagnostics
  2. M.Tech. in Biotechnology – 6 year Integrated
  3. M.Phil. in Biochemistry
  4. M.Tech. in Computer Science
  5. Ph.D. in Marine Biotechnology
  6. M.Phil. in Women Studies
  7. Certificate, Diploma and P.G Diploma Course in Life Skills and Management, Micro Enterprise Management.

**3. Innovations in curricular design and transaction :**

- The curriculum of various study programmes in the departments are designed such that the student learn sufficient number of basic and advanced level courses.
- The syllabus of various courses are revised.

**4. Interdisciplinary programmes started :**

Nil

**5. Examination reforms implemented :**

- Question paper pattern for certain courses are revised so that more emphasis is given to test the basic understanding of the concepts and to improve the problem solving skills.
- Evaluation of answer papers is made more transparent.

**6. Candidates qualified : NET/SLET/GATE etc.**

NET/SLET/GATE : 16

**7. Initiative towards faculty development programme :**

- Orientation programmes and refresher courses on specific topics are organized regularly in the Academic Staff College of the University to improve the teaching and research qualities of young faculty members.
- Also faculty members are encouraged to attend orientation programmes and refresher courses organized outside the institution.
- Faculty members are encouraged to attend research conferences and workshops in India and abroad.

**8. Total number of Conferences /Seminars/Workshops conducted/organized :**

28

**9. Research projects :**

**(a) Newly implemented :**

No. of Projects : 26

Total outlay : Rs.1607.91 lakhs

**(b) Completed :**

No. of Projects : 15

Total outlay : Rs.131.65 lakhs

**10. Patents Generated :**

Nil

**11. New collaborative research programmes :**

Research collaborations

National

Yes	✓	No	
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If yes, how many?

8
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Overseas

Yes	✓	No	
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If yes, how many?

5
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**12. Research grants received from various agencies :**

No. of Projects : 26

Total outlay : Rs.1607.91 lakhs

**13. Details of Research Scholars :**

Nature of Registration	On Roll	Newly Registered	Degree Awarded
Full-time/ Part-time	274	50	21

**14. Citation Index of faculty members and Impact factor :**

- (i) Some of the research papers published by few faculty members have good number of citations.
- (ii) Science faculty members normally publish their research papers in reputed international journals with high impact factor.

**15. Honours/ Awards to the faculty :**

- INSA – KOSEF (Korea) Exchange Fellowship to Korea (Pohang University of Science & Technology) – School of Chemistry
- INSA-Royal Society, UK Visiting fellow 2007– School of Chemistry
- Visiting Scientist under INSA-DFG bilateral exchange programme, Department of Chemistry and Pharmacy, University Erlangen-Numberg, Erlangen, Germany– School of Chemistry
- Ramanna Fellowship, Department of Science and Technology, New Delhi 2007-2010– School of Chemistry

- INSA-DFG (German Research Council) Exchange Visiting Fellowship, March – April 2008, University of Bochum, Germany– School of Chemistry
- Reviewer Textile Research Journal 2007– School of Chemistry
- Young Scientist Fellowship (2008-2011), DST FAST Track, Government of India – Dr.R. Ramesh Babu, School of Physics.
- Tamil Nadu Young Scientist Fellowship Award (2008-2009) – Dr.R. Ramesh Babu, School of Physics.
- Vice Chairman-Electro Organic and Inorganic Group of the Society for Advancement of Electrochemical Science and technology (SAEST) – Dr.A. Ilangovan, School of Chemistry.
- Elected as President for the Society of Science and Environment, Jalgaon – Prof.M. Krishnan, Department of Environmental Biotechnology.
- “Hiyoshi Environmental Award 2007” by Hiyoshi Corporation Japan – Dr.R. Babu Rajendran, Department of Environmental Biotechnology.
- DST young scientist award - Dr. K. Premkumar, Department of Biomedical Science
- Rashtriya Vidya Saraswati Puraskar award by the Interantiaonl Institute of Education and Management- Dr.M. Selvam, Department of Commerce.
- Best Social Worker Award by Athma Institute of Mental Health, Tiruchirappalli, Tamil Nadu – Prof.N. Manimekalai, Department of Women Studies.
- Brahmaiah Sastri Memorial Award-Dr.T.Thirunalasundari, Department of Biotechnology.
- INSA-Anil Kumar Bose Memorial Medal (2009)- Dr. Joseph Selvin, Department of Microbiology
- Advisory Board member in Editorial board of Drug Invention Today and International Journal of Chemical and Analytical Science, Madhya Pradesh, India- Dr.D.Dhanasekaran, Department of Microbiology.
- Tamilnadu Scientist Award (Biological Science ) Govt. of Tamil Nadu, - Dr. G. Archunan, Department of Animal Science.
- Fellow of the “International Institute of Adult and Life Long Education (IIALE)” - Prof.K.Parthasarathy, Department of Lifelong Learning.
- Best Book Award for the year 2008 – for the book ‘ Sangat Tamizhisai’ by the Directorate of Tamil Development, Government of Tamil Nadu - Dr. T. Kanagasabai, Department of Tamil.

**16. Internal resources generated :**

Rs.18,69,48,582/-

**17. Details of Departments getting SAP,COSIST (ASSIST)/DST-FIST etc. assistance/recognitions :**

UGC – SAP : School of Chemistry(Contd.), School of Physics(Contd.), Animal Science(Contd.), Geography(New).

DST – FIST : School of Physics(Contd.), Department of Animal Science(Contd.), School of Chemistry(Contd.).

**18. Community Services :**

- Awareness programme for Women Entrepreneurs
- Exhibition of Products by Self Help Group cum Sale in collaboration with the NABARD.
- An antibiotic resistance awareness campaign of the Indian Initiative for Management of Antibiotic Resistance (IIMAR) was conducted at Tiruchirappalli.
- Civil Service training consultancy for rural youth in collaboration with District Employment office.

**19. Teachers and officers newly recruited :**

68

**20. Teaching Non-teaching staff ratio :**

1:3

**21. Improvements in the Library services :**

New books at the text book level and also advanced books based on the requirement and current trend are added.

**22. New books/ journals subscribed and their cost :**

(a) Central Library

Number of books added : 2450

Journals subscribed : 204

(b) Department Library

Number of books added : 2,176

Cost of the books : Rs.20,56,009/-

**23. Courses in which student assessment of teachers is introduced and the action taken on student feedback :**

Feedback about all the courses and the course teachers are obtained from the students and the comments made by the students are discussed with the concerned faculty members for improvement.

**24. Unit cost of education :**

Approx. : Rs.5000/-

**25. Computerization of administration and the process of admissions and examination results, issue of certificates :**

The examination system has been fully computerised with the in-house developed software, specially suiting to the requirements of the affiliated colleges programmes. The processing of results, DTP printing of Certificates/Degrees etc. are all done without delay.

In the University Departments the admission process including entrance examination, preparation of rank, selection, waiting list is fully computerized which makes the admission very efficient. Also, the conduct of examination and publication of results apart from routine administration are computerized.

**26. Increase in the infrastructural facilities :**

- The Seminar Hall in the School of Physics was newly furnished and airconditioned.
- Enough Furniture were added to the computer laboratory at the School of Physics.
- Deep Freezer, Thermal Cyler, ELISA Plate Analyzer, Electronic Orbital Shaker, Laminar Air Flow, Refrigerated Centrifuge were added to the Department of Biomedical Science.
- A separate computer lab was established at the Department of Commerce.
- 30-Computer tables and chairs were purchased at the Department of Mathematics.
- The Department of Women Studies was shifted to a separate building with adequate infrastructure facilities in Khajamalai Campus.
- Internet cables are laid for all the rooms in the Department of Biochemistry.
- Western Blot apparatus, Phase Contrast microscope ,BOD incubator were purchased by the Department of Biotechnology.
- Personal Computers were given to all the faculty members of the Department of English.
- The class rooms in the Department of Environmental Management were computerized.
- The Seminar Hall in the Department of History was Airconditioned.
- E- Learning lab with fully equipped Pcs and Multimedia Teaching Methods were developed in the Department of Lifelong Learning.
- Intercom facility was strengthened.
- Sufficient number of classroom desks and benches and computers, necessary tables and chairs were provided to the Department of Tamil.
- The Language laboratory was strengthened with computer systems and audio visual equipments.

**27. Technology upgradation :**

- A 400 MHz NMR machine was installed at the School of Chemistry.
- Campus-wide network with optical fibre backbone was established. The official website <http://www.bdu.ac.in> was launched.
- A computer cluster was added to the High Performance computing laboratory in the Centre for Nonlinear Dynamics of the School of Physics.
- Mirror stereoscopes (5 No.), and Parallax Bar (5 No.) have been procured for visual interpretation were purchased by the Department of Geography.
- Garmin Hand held GPS and Trimble DGPS instruments have been procured for Geodetic survey were purchased by the Department of Geography.

- 30 Personal Computers and two UPS systems were added to the computer laboratory of the Department of Mathematics.
- Wi-fi and cable network systems were made available for all the rooms in the Department of the Biochemistry.

**28. Computer and internet access and training to teachers and students :**

Computer and Internet access have been provided to both teachers and students. No training is given. Faculty members are provided with individual desktop with internet facility. The Informatics Centre of the University has a bandwidth of 64 kbps for internet connectivity.

**29. Financial aid to students :**

The Post Graduate Students belonging to Backward, Most Backward and Schedule Caste and Tribes are getting scholarships from the State Government of Tamil Nadu. Research Scholars receive fellowships from different agencies such as UGC, CSIR, DST, DBT, ICMR, DAE, Bharathidasan University etc.

Total amount of Scholarship	: Rs.79,01,429/-
Total amount of Fellowship	: Rs.86,35,946/-

**30. Support from Alumni association and its activities :**

Several Alumni from various departments have regular contact with the faculty members, scholars and students and take part in the welfare of the departments.

**31. Support from Parent-Teacher Association and its activities :**

There is no formal Parent-Teacher Association in the University. However, all the departments conduct Parent-Teacher Meet on the first day of the programme in the academic year and various issues related to the teaching programmes and students are discussed.

**32. Health Services :**

The University's Health Centre was established in the year 1993. The Health Centre is located in a building with 300 sq.ft. area, which is very close to the Administrative Building, Hostels and to the Staff Quarters. The Health Centre has physical facilities such as bathroom, toilet, wash basins, fans, lights, drinking water, etc. The health centre has First-aid medicine, IRR Lamp, Electrocardiogram and other basic equipments. The working hours of the Health Centre is from 9.00 a.m. to 5.00 p.m. The Centre has link with all the major hospitals in the city. The health centre has the following medical personnel.

The Health Centre is managed by a qualified part-time Doctor and a qualified full-time nurse.

### 33. Performance in sports activities :

- Suriya.L. Gold medal in 5000 Mts. in the All India Competition
- Adi Udaiyam Silver medal in Power lifting in the All India Competition
- S.Venkatesan Bronze medal in Weight lifting in the All India Competition
- Women Netball team secured third position in All India tournament.
- Men Hockey team secured Fourth position in South Zone tournament.  
Women Ball Badminton secured Fourth position in All India tournament.

### 34. Incentives to outstanding sports persons :

Special prizes are given to Men Volleyball team. AIU, New Delhi has also provided prize money of Rs.30,000/- for attaining runners-up position in the All India Tournament.

Special prizes are given to Ball Badminton (Men) for bagging first place in the All India tournament.

Special prizes are given to both athletes Shanti and Gopi for winning medals in the All India Inter-University Competition.

### 35. Student achievements and awards :

- S. Vaideeswaran, School of Chemistry DAAD Ph.D (Sandwich) Scholar, 2008-2010, Max Planck Institute Mulheim, Germany
- R. Senthil Kumar, School of Chemistry Swiss Government Scholarship to do part of the Ph.D.,
- Best Poster Award in the School and Symposium on Advanced Biological Inorganic Chemistry (November 2-7, 2009), Tata Institute of Fundamental Research (TIFR), Mumbai, "Synthetic Nuclease and Protease Activity of Mixed Ligand Copper(II) Complexes of Diimines", R. Loganathan, S. Ramakrishnan, E. Suresh and M. Palaniandavar.
- Best Poster Award in the International conference on Coordination and Organometallic Chemistry", Bharathiar University, "Synthesis, Structure and DNA Binding and DNA Cleavage Activity of Mixed Ligand Copper(II) Complexes of Diimines", R. Loganathan, S. Ramakrishnan, E. Suresh and M. Palaniandavar, March 19 -21, 2009.
- Dr. C. Gunanathan, School of Chemistry was awarded AvH fellowship, Germany.
- M. Ulaganatha Raja, Department of Chemistry – Best poster presentation award at the "International Conference on Co-ordination and Organometallic Chemistry" (ICCO-2009) held during 19<sup>th</sup>-20<sup>th</sup> March 2009, at Bharathiar University, Coimbatore.
- Mr. Harikumar Pamisetty M.Tech (2005-2007), Centre for Remote Sensing Passed UPSC-2009 Geologist Examination.
- Few students from the Department of Mathematics participated in state level quiz programme and won prizes.
- E.Deepa, Department of Women Studies qualified NET in Women's Studies.



- Miss. Isaipratha of Department of Biochemistry qualified GATE exam.
- S. Mayavan, Department of Biotechnology won Second Prize in Poster Presentation in the International Conference on Plant Biotechnology held at Kakatiya University, AP.
- Five Research Scholars from the Department of Microbiology won Best Paper Award in different seminars and conferences.
- R. Jayendra Selvam, Department of History - Prof. K.R. Hanumanthan Endowment Medal
- K. Marimuthu, K. Jeyakalai, K. Ravi and K. Kumaravel from the Department of History were awarded Ph.D. Research Studentships.
- Dr. S. Velayuthaprabhu, Department of Animal Science received Matsumae International Fellowship, Tuokai University, Japan.
- Dr. P. Ponmanickam, Department of Animal Science received Post Doctoral Fellowship from Heiwa Nakajina Foundation, Hokaido University, Japan.
- S. Rathnam, an M.Phil. student of the Department of Tamil won several prizes in the cultural and poetry writing events.

### 36. **Activities of the Guidance and Counselling Cell :**

Each department has appointed mentors among faculty members to different classes to provide academic, career and personal guidance and counseling to the needy students whenever required.

### 37. **Placement services provided to students :**

The University does not arrange common placement programme for the students. However, each department, through their contacts with other institutions and companies in India and abroad, helps the students to get good employment. Also, the students get placements through their own contact if they do their project work outside the University. Similarly, research scholars get placement through their contact during the post-doctoral programmes outside the University. Further alumni help their juniors. Several students get teaching positions in colleges.

### 38. **Development programmes for non-teaching staff :**

Common development programmes for non-teaching staff are organized rarely. However, non-teaching staff who are interested in pursuing higher qualifications through distance education mode are encouraged by the institution. Also, inhouse training is provided to non-teaching staff of the University at regular intervals.

### 39. **Best practices of the institution :**

- The students can make an appeal to redress their grievances regarding evaluation of the answer papers.
- Nodal centre for other Women's Studies Centres/ Cells and extended its consultancy

- Revision of CSIR model question paper and Encouraged to clear CSIR exam successfully
- Inculcating the comparative instinct among the students through comparative study of literatures and translations
- Awareness programme on tree plantation
- Access of books by students in all working hours
- Individual computer system for learning by the students

**40. Linkages developed with national / international , academic / research bodies :**

**School of Physics:**

- Department of Physics, Bangalore
- Indian Institute of Chemical Biology, Kolkatta
- FCT- UNL, Caparica, Portugal
- Postdam Inst. For Climate Impact Research , Germany
- Saha Institute of Nuclear Physics, Kolkata
- Sant Longowal Institute of Engineering and Technology, Sangrur, India
- Instituto de Física Teórica, Universidad Estadual Paulista, Brazil
- Departamento de Física Teórica, Facultad de Ciencias, Universidad de Zaragoza, 50009 Zaragoza, Spain
- Area de Matemática Aplicada, ESCET, Universidad Rey Juan Carlos, Madrid, Spain
- Institute of Theoretical Physics, State Univ. Sao Paulo, Brazil.

**School of Chemistry :**

- Prof. Jacqueline M. Cole, University of Cambridge, Cambridge, CB3 0HE. UK, - Synthesis and study on NLO properties of novel organic NLO materials
- Professor Walter Thiel, Max Planck Institute for Kholenforschung, Mulheim , Germany
- National Institute of Technology, Tiruchirappalli.Tamilnadu.
- Prof. K. H. Ahn, POSTECH, S. Korea
- Prof. D. K. Bandyopadhyay, IIT-Delhi
- Dr. Maria Anronia Martin Carmona, University of Complutense, Spain
- Dr. Eringathodi Suresh, Analytical Science Discipline, Central Salt and Marine Chemicals Research Institute, Bhavnagar 364 002, India.

**Department of Environmental Biotechnology**

- United Nations University, Tokyo, Japan and SHIMADZU Corporation, Japan
- Centre for Research in Medical Entomology, Madurai

**Department of Plant Science**

- National Institute for Forestry, Agriculture and Livestock Research, Mexico
- National Research Centre for Banana, Trichy
- Sharmila Pharma - Sharmila Institute of Medicinal Products Research Academy (Hereafter referred as SIMPRA), Thanjavur

**41. Any other relevant information :**

Nil

**Part – C : Detail the plans of the institution for the next year**

In the next year,

- The infrastructure in the departments will be improved.
- Research in new frontier areas will be initiated.
- New teaching programmes will be started.

Name and Signature of the  
Coordinator/Director, IQAC

Name and Signature of the  
Chairperson, IQAC