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

Name of the Institution : Bharathidasan University, Tiruchirapalli 620 024, Tamil Nadu

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# Year of Report : 2005-2006

# <u>Part-A</u>: 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. Research facilities were improved by adding new equipments.
- 2. Choice Based Credit System in teaching programmes were implemented with full vigor.
- 3. Scientific meetings in emerging areas were organized.

# Part-B

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

- > Organisation of conferences, workshops and seminars by various departments.
- > Enhancing the laboratory facilities.
- Strengthening the curriculum.
- > Approching scientific agencies for more grants.

# 2. New academic programmes initiated :

Total number of programmes initiated : 7

Details : 1. M.Sc. Biochemistry

- 2. Ph.D. Biochemistry
- 3. M.C.A.
- 4. P.G. Diploma in Geomatics
- 5. M.Sc. Biomedical Science (V Year Integrated)

- 6. M.Sc. Biotechnology
- 7. M.Sc. Life Science (V Year Integrated)

# 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 pattern of Choice Based Credit System is revised and implented.
- More elective courses are offered.

# 4. Interdisciplinary programmes started :

M.B.A. - Environmental Management M.Sc. - Biomedical Sciences

UGC Innovative Programme on P.G.Diploma in Geomatics

# 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.
- > Examination pattern is revised such that problem solving skills are given importance.
- Faculty members with specialization on the course are offered examinership for the evaluation of the answer papers.
- 6. Candidates qualified : NET/SLET/GATE etc.

NET/SLET/GATE : 20

# 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 :

24

# 9. Research projects :

(a) Newly implemented :

No. of Projects : 17 Total outlay : Rs.633.34 lakhs

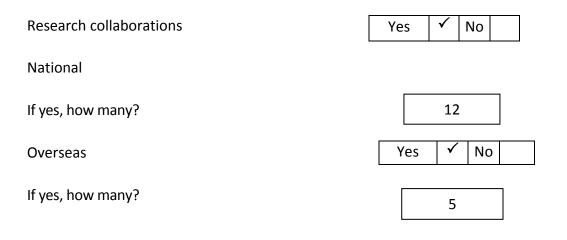
#### (b) Completed :

No. of Projects : 9 Total outlay : Rs.6.80 lakhs

#### 10. Patents Generated :

2 Patents

#### 11. New collaborative research programmes :



#### 12. Research grants received from various agencies :

No. of Projects : 19 Total outlay : Rs.231.84 lakh

#### 13. Details of Research Scholars :

Nature of	On Roll	Newly	Degree
Registration		Registered	Awarded
Full-time/ Part-time	247	40	20

# 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 :

- Visiting Scientist at the Abdus Salam ICTP, Trieste, Italy Prof.M. Daniel
- Visitor Universita de Catania, Catania, Italy Dr.M. Senthilvelan
- TWAS-UNESCO Associateship at Centre of Excellence in the South Dr.P. Muruganandam
- AvH Revisit programme, Germany
- Visiting Professor, Academica Sinica, Taipei, Taiwan
- Tamil Nadu Best Scientist Award (TANSA) for Chemical Sciences
- AvH Revisit programme, Germany
- Visiting Professor, Academica Sinica, Taipei, Taiwan, 2005
- Common Wealth Fellowship Award at United Kingdom Prof.M. Krishnan
- Environmental Management Award Dr. R. Babu Rajendran
- Citation / Award for outstanding contributions in Remote Sensing and GIS for Earth Sciences CLUMA, NRSA, IST, Hyderabad Prof.SM. Ramasamy.
- Young Economist Award, Association of Economists of Tamil Nadu Prof.N. Manimekalai
- Bharat Jyothi Award by Indian International Friendship Society, New Delhi Prof. V. Ayothi
- Membership in American Society for Microbiology (ASM) and International Leptospira Society (ILS)- Dr.K.Natarajaseenivasan
- INSA YOUNG SCIENTIST MEDAL (for outstanding contribution in the field of shrimp disease management using marine bioactive molecules) Dr.Joseph Selvin
- Professor LSS Kumar Memorial Award (for the contributions in Agricultural (Marine) Sciences. Awarded by: Indian National Science Academy (INSA), New Delhi) - Dr.Joseph Selvin
- Jaigopal Garodia Professor for Animals Award, People for Animals (PfA), Chennai Dr. M.A. Akbarsha.
- Fellow in Reproduction and Endocrinology (FRE) by the society for Reproductive Biology and Comparative Endocrinology, Chennai Dr. M.A. Akbarsha.
- DST Fast Track Young Scientist Award Dr. K. Emmanuvel Rajan.
- DAE Young Scientist Award Dr. K. Emmanuvel Rajan.

# 16. Internal resources generated :

Rs.13,92,66,751/-

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

UGC – SAP : School of Chemistry(Contd.)

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

# 18. Community Services :

- Awareness programme on Education and Herbs.
- Children's Science Camp.
- Eye camp for school children.
- Awareness programme for AIDS.

# 19. Teachers and officers newly recruited :

23

# 20. Teaching, Non-teaching staff ratio :

1:3

# 21. Improvements in the Library services :

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

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

- (a) Central Library
   Number of books added : 2350
   Journals subscribsed : 172
- (b) Department Libraries

Number of books added	: 2,775
Cost of the books	: Rs.18,62,721/-

# 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 :

- Adequate infrastructure was added to accommodate the newly established Department of Women Studies.
- Wi-fi, computer access and internet facilities were provided to newly started Science Departments.
- Gene Pulser, Sonicator were added in the laboratory of in the Department of Biotechnology.
- A new Animal House was constructed.
- Sophisticated Audio- Visual Aids are added to the some of the Departments.

# 27. Technology upgradation :

- IBM Blade Servers were procured for hosting web and mail services at the University Informatics Centre.
- Video Conferencing equipment was procured for conducting online viva-voce and online interviews.
- GIS Lab at the Department of Geography has been upgraded with 2 Licenses of ArcGIS 9.1 Software.
- Multi band Ground Truth Radiometer has procured for use in the Department of Geography.
- Audio Visual equipments and Fax machines were added to some of the Departments.
- Admission and Examination results processes are computerized in many Departments.

# 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.57,24,525/-
Total amount of Fellowship	: Rs.25,27,049/-

#### 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 :

- Men Ball Badminton bagged the first position in All India tournament.
- Yogapriya Gold medal in Power lifting in the All India Competition
- Arun Gold medal in Power lifting in the All India Competition.
- S.Suriyakumar Silver medal in 110 Hurdles in the All India Competition.

#### 34. Incentives to outstanding sports persons :

S.Suriyakumar (Athletics)	Rs.1500/-
Yogapriya (Power lifting)	Rs.2000/-
Arun (Power lifting)	Rs.2000/-
Mr.N.S.Sivakumar (Coach – Power lifting (Women))	Rs.2000/-
Mrs.C.Malathi (Manager- Power lifting (Women))	Rs.2000/-
Mr.A.Paulraj (Manager cum Coach –Power lifting (Men)	Rs.2000/-

Dr.T.Pichiappa (Manager – Athletics)		Rs.1500/-
Mr.M.Kasi	(Coach – Athletics )	Rs.1500/-

#### 35. Student achievements and awards :

- K. Santhakumar, Department of Chemistry was awarded Swiss Government Scholarship to do part of the Ph.D. in Switzerland.
- One student from the Department of Biochemistry was awarded Rajiv Gandhi National Fellowship.
- V.Samrot and A.Ganeshkumar from the Department of Biotechnology won the MABMS Title at the 26th Annual Conference on IABMS.
- S. Vijayakumar of Department of Microbiology won the Best Paper award at the National Symposium on Algae, Man and Biosphere held during 24-25 February 2006.
- Dr.R. Shankar from the Department of Animal Science received a Post Doctoral Fellowship at the Hokaido University, Japan.
- S. Alamelumangai from the Department of Lifelong Learning received UGC's Junior Research Fellowship.
- S. Anandavel, S. Maheshkumar, A. Nirmalkumar, S. Gobi and V. Lakshmanan from the Department of Tamil won prizes in the University's Annual Cultural Programme (BARD-FEST).

# 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, noteaching 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 :

- Conducting case study, group discussion, management games, students seminars, workshop, training and quiz to all P.G students.
- Catering to diverse needs.
- > Encouraging PG students to take their projects in National & International institutes.
- Exposure to enriched library
- The students are encouraged to do summer projects and to attend short term training programs, workshops, seminars, conferences.
- Science Club meetings for encouraging students.
- > Collective decision making and transparency in administration.
- Classroom questions are answered immediately by the teacher without delay.
- > Reforms in Evaluation process and quick publication of the results.

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

# School of Physics:

- University of Cergy-Pontoise, France.
- University of Colorado, Colorado, USA
- FCT- UNL, Caparica, Portugal
- IUAC, New Delhi
- Institute of Physics, University of Neuchatel, Switzerland
- MRC, IISc., India
- Postdam Inst. For Climate Impact Research , Germany
- Saha Institute of Nuclear Physics, Kolkata
- Instituto de Física Teíorica, Universidad Estadual Paulista, Brazil
- Department of Mathematics, University of British Columbia, Vancouver, Canada

# School of Chemistry :

- Prof. H.Liang Ningbo University 315211, P. R. China, Study on crystal structures of novel organic molecules. 2006-Till date.
- Prof. Dr. Claude Daul, University of Fribourg, Fribourg, Switzerland.
- Max-Plank Institute for Polymer Research, Mainz, Germany.
- Prof. B. Spingler, University of Zurich, Switzerland
- Dr. Y. Liu, University of Zurich, Switzerland

- Dr.Stoeckli-Evans H Institut de Chimie, Universite' de Neucha<sup>tel</sup>, CH-2007 Neucha<sup>tel</sup>, Switzerland
- Dr.Neuburger M, Department of Chemistry, University of Basel, Basel, Switzerland and
- Dr.Halcrow M A, School of Chemistry, University of Leeds, Woodhouse Lane, Leeds
   LS2 9JT, UK

# Women Studies :

UNESCAP

# **Environmental Management :**

Member in the Commission on Education and Communication (CEC) of IUCN- The World Conservation Union for the Period 2005-2008

# Microbiology :

Department of Botany, Bharathiar University, Coimbatore in the area of "Rhozosphere Biology".

# History :

ICHR, UGC, TANSCHE

# Animal Science :

University of Liverpool, U.K. Hohenheim University, Germany.

# Lifelong Learning:

UGC, New Delhi,

Ministry of Social Justice and Empowerment, Monitoring Cell, Government of India, New Delhi Tamil Nadu State Council for Science and Technology, Govt. of Tamil Nadu, Chennai. Voluntary Health Services, Chennai & APAC

# 41. Any other relevant information :

Nil

# <u>Part – C</u>: Detail the plans of the institution for the next year

In the next year,

- Faculty strength will be increased to meet requirements in teaching and research.
- New teaching programmes on interdisciplinary topics will be introduced.
- Linkages and Collaborations will be improved.

Name and Signature of the Coordinator/Director, IQAC

Name and Signature of the Chairperson, IQAC