

ANNUAL ASSESSMENT REPORT

NAME OF THE INSTITUTE: SCHOOL OF PHYSICS

Period of Report: 2011- 12

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.

<p>1. Curricular Aspect</p>	<ul style="list-style-type: none">• Grade-Credit System is followed• M.Sc.(Physics) , M.Sc.(Material Science), M.Sc. by research, M.Phil and M. Tech (Laser) and Ph.D are the prestigious programs of the department.• The curriculum is updated from time to time. Last updated in the meeting of departmental committee in July 2012.• Students and teachers participate in various conferences and presented their papers.• Curriculum update based on the current needs of the Schools and advances in knowledge• The feedback from students is taken at the end of each semester and is analyzed for further improvement• For quality improvement in the field of academics, research and extracurricular activities various suggestions from teachers and students were accepted and implemented• All courses of School of Physics are job-oriented courses• Department worked with a goal to provide best possible knowledge in the field and for the overall development of the students through regular teaching and discussion with them• Seminar activities are conducted and special slots are made available for it to improve the presentation skills in the students. Students are encouraged to deliver seminars on recent developments in the field of Physics.
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	<ul style="list-style-type: none"> • Inter disciplinary courses are added in the syllabus. • Students for M.Sc. courses are admitted through centralized common entrance test process (CET). M. Tech students are admitted through on the basis of gate score and for non gate the written test followed by the interview. Admission to M. Phil. and Ph.D. courses now on the basis of Entrance exam as per the UGC regulation 2009 and followed by interview NCTE norms are strictly adhered to in the admission process • State governments norms are followed in admission process for reserved categories and women • Remedial sessions are organized for weaker students and enrichment sessions for the brighter ones
<p>2. Teaching – learning and Evaluation</p>	<ul style="list-style-type: none"> • Seminar hall is equipped with multimedia projector • Lectures are supplemented by assignments, seminars. • Practicals are conducted in the laboratories for each courses. • Exposure to research and innovation skills through Students Project is introduced at M.Sc. level. • Students are encouraged to take up summer trainings at various national laboratories. • Teacher student ratio is 1:15 • School of Physics boasts of a team of qualified faculty (06 Professors, 01 Associate professor, and 01 senior Assistant Professor 01 assistant professor on deputation. • Teachers deliver invited talks in various colleges, Universities, national and international conferences. Ph.D. qualified faculty as on date is 100% • Continuous and comprehensive evaluation process is followed with three session examination , end semester exam in each course

	<ul style="list-style-type: none"> • Transparency and Openness is hallmark of evaluation system • Grade-credit Teacher based evaluation system is followed • Strict adherence to examination schedule, timely evaluation of answer sheets and declaration of results. • Students' are given feedback on their performance and answer sheets are shown to them • Result processing is computerized • Teaching learning process incorporates ICT component • External audit in the form of Comprehensive viva is a special feature of evaluation • Innovative Evaluative practices like peer evaluation, open book examination, Teacher Evaluation by Students are followed. • Departmental Seminar is held on every saturday • Important days, co-curricular activities and Annual function are observed/celebrated
<p>3. Research, consultancy and Extension</p>	<ul style="list-style-type: none"> • Department is having many research projects from various funding agencies viz; DST,UGC,DAE, DRDO, MPCST etc. • Organized international conference on recent trends in Physics (ICRTP 2012) on 4th and 5th Feb. 2012. • Invited lecture by Dr. V. K. Jain (professor emeritus, IIT Delhi)\ • Apart form this, seminars were delivered by Ph.D Students • Five new collaborative research programme with UGC-DAE-CSR have been started • Department has nearly 30 research scholars. • Self instructional material in electronic and digital form is made available to the students. • Teachers have received many awards at national and state

	<p>level.</p> <ul style="list-style-type: none"> • Academic linkages forged with different apex bodies like IPR, PRL Ahmedabad, Ceeri Pilani, RRCAT, IUC-DAE-CSR Indore, UGC, DST etc
4. Infrastructure and Learning Resources	<ul style="list-style-type: none"> • Optimal utilization of equipments and computer resources • Dissemination of e-contents has been planned • Some class rooms are ICT enabled • Department has enriched library with about 5,000 books • ICT networking through IT centre and LCD facility is available • All labs are well equipped
5. Student Support and Progression	<ul style="list-style-type: none"> • Good placement, most of the students are absorbed in International Universities, National laboratories, National universities, colleges, Laser based industries and schools • Alumni association is formed in the department • Students avail of Hostel, internet and Health facilities of the University • Grievances redressal mechanism exists and counseling is provided to students • Students participated in University Cultural and Sports activities
6. Governance & leadership	<ul style="list-style-type: none"> • Full academic autonomy • Faculty involved in Selection, Examination and Professional Development activities of the Universities • School of Education holds key position in managing affairs of Devi Ahilya University. related to education, research and

	<p>administration.</p> <p>(i). One of the faculty member was acting Vice Chancellor and Rector of the university.</p> <p>(ii). Three faculty members were heading three different departments of the university.</p> <p>(iii). Three faculty members were actively involved in the central valuation process of the university.</p> <p>(iv). The senior faculty members are also involved in various policy making committees of the university viz; reforms in ordinances and exam pattern, Conduct of common entrance test, etc.</p> <ul style="list-style-type: none"> • Academic Calendar is strictly followed. Teaching schedule is adhered to and syllabus is covered on time • Strong emphasis on classroom teaching • Results declared on time • Assessment of students is undertaken through regular and continuous evaluation and end semester examination • Student feedback system is followed for continuous improvement • University's various examinations are organized and conducted in the department
7. Innovative practices	<ul style="list-style-type: none"> • ICT based teaching • Students feedback system in vogue • Students are provided with internet facility • Use of problem solving approach,

Part B: ACTIONS UNDERTAKEN DURING THE YEAR

01	Activities reflecting the goals and objectives of the institution	To educate and prepare students to accept the national and global challenges in the emerging areas of Physics. To fulfill the above goal we update our syllabi regularly in the view of National examination as GATE/NET/JEST following the UGC guidelines.
02	New academic program initiated (UG and PG)	None
03	Innovations in curricular design and transaction	Syllabus of M.Phil. revised in June '11.
04	Inter-disciplinary programmes started	Already exists
05	Examination reforms implemented	Exams are conducted in accordance with Ordinance 31 of the University.
06	Candidates qualified NET/SLET/GATE etc.	10
07.	Initiative towards faculty development programme	Almost all the faculty has research collaborations.
08	Total number of seminars/workshops conducted	<ol style="list-style-type: none"> 1. Organized international conference on recent trends in Physics (ICRTP 2012) on 4th and 5th Feb. 2012. 2. Invited lecture by Dr. V. K. Jain (professor emeritus, IIT Delhi)\ 3. Apart form this, following seminars were delivered by Ph.D Students and the experts in th field. <ol style="list-style-type: none"> (i)..Malayaj Das (ii) .Shakil Qureshi (iii) Irfan Mansuri (iv) P.Subhash (v).Sonu Sen (vi).S.K.Ghosh (vii).Dr.Jai Kumar 4. Prof.V.K.Tripathi

09	<p>Research projects</p> <p>a)Newly implemented</p> <p>b)Completed</p>	<p>Nine</p> <p>five</p>
10.	<p>Patents generated if any</p>	<p>None</p>
11.	<p>New collaborative research program</p>	<p>Five new collaborative research programme with UGC-DAE-CSR have been started</p>
12.	<p>Research grants received from various agencies</p>	<p>UGC CSR DAE</p> <p>1. Rs.3.85 lacs for three years (Dr. A.Mishra)</p> <p>2.Rs. 3.82 Lakhs. (Dr. D.Varshney)</p> <p>3.Rs. 1.50 Lakhs (Dr. P. Sen)</p> <p>4.Rs. 3.93 Lakhs (Dr. S.N. Kane)</p> <p>5.Rs. 1.31 Lakhs (M.Banerjee)</p> <p>UGC</p> <p>6.Rs. 3.35 Lakhs (Dr. D.Varshney)</p> <p>7-Rs.11.94 Lakhs (Dr.P.Sen)</p> <p>8. Rs. 7.3 Lakhs (Dr. D.Varshney)</p> <p>DRDO</p> <p>9. Rs. 18.566 Lakhs (Dr. D.Varshney)</p> <p>11.Rs.32 Lakhs . (Dr.G.Mishra)</p> <p>DST</p> <p>12. Rs. 15.59 lakhs (Dr.P.Sen)</p>

		<p>13. Rs.23.70 Lakhs (Dr.G.Mishra)</p> <p>14. Technically approved (Dr.P.Sen)</p> <p>MPCST</p> <p>15. Rs. 3.0 Lakhs (Dr. D.Varshney)</p>
13	Details of Research Scholars	<ol style="list-style-type: none"> 1. S.Thakur (Thesis submitted) 2. Arvind Yogi (awarded) 3. Sumit Tripathi (awarded) 4. Rekha Sharma (awarded) 5. Neetu Parsai (awarded) 6. Pallavi Pandit (On going) 7. Lalsingh Changad (On going) 8. Arti Sharma (On going) 9. Saikat Chattopadhyay (On going) 10. Shivani Rana (On going) 11. Prasad Deshpande (On going) 12. Nidhi Parmar (On going) 13. Vasudha Rajput (On going) 14. Niyati Mishra (On going) 15. Samrath Ninama (On going) 16. Shweta Mishra (On going) 17. Garima Jain (On going) 18. Wasim Sheikh (On going) 19. Kavita Verma (On going) 20. Rajendra Jain (On going) 21. Neha Dodiya (On going) 22. Swarna Shreya (On going) 23. Dinesh Chaudhary (On going) 24. Gitanjali Sharma (On going) 25. Mona Gehlot (On going) 26. Hussain Jeeva Khan (Thesis submitted) 27. P.Prakash (On going)
14.	Citation index of Faculty members and impact factor	Average impact factor 1.5
15	Honors/Awards to the	1. Dr. J.Chauhan received career award for young teachers.(CAYT by AICTE)

	faculty	<p>2. Dr. Dinesh Varshney received Bharat Jyoti Award.</p> <p>3. Dr. Y.Choyal Vice President, VEDAS Society.</p> <p>4. Dr. Pratima Sen President IPA Indore Chapter</p>
16	Internal resources generated	Departmental Fees as decided by the University.
17.	Details of departments getting SAP, FIST, etc assistance/recognition	None
18.	Community services	Nil
19.	Teachers and officers newly recruited	Dr. A. Ghosh Dr. D. S. Kothari Post Doctoral Fellow
20.	Teaching-Non-teaching staff ratio	9:11
21.	Improvements in the library services	Database available
22.	New books/journals subscribed and their Value	Central library has been requested to purchase books from the list provided (through UCG grant).
23.	Courses in which Student Assessment of Teachers is introduced and the action taken on student feedback.	<p>M.Sc., M.Phil., and M.Tech. (Laser Sc & Applications)</p> <p>Student's feedback was analyzed. Overall rating about the department and teachers was very good.</p>
24.	<p>Unit Cost of Education.</p> <p>Unit cost = total annual expenditure budget</p> <p>(Actual) divided by the number of</p>	<p>Not Applicable for regular staff</p> <p>Rs. 2,200 per year (for temporary non-teaching staff)</p> <p>Rs. 550 per year (for teaching staff)</p>

	students enrolled.	
25.	Computerization and Administration and the process of Admissions and examination, result issue of certificates.	Computerized result, preparation & issue of grade sheet with photograph.
26.	Increase in the infrastructural facilities.	Classrooms were renovated and new furniture was provided.
27.	Technology up gradation.	Computerized results, Power point class room teaching facility.
28	Computer and internet excess and training to teacher and students.	Yes
29.	Financial aid to students.	Govt. aid is provided to SC/ST candidates. Two research scholars awarded Rajiv Gandhi fellowship for SC/ST students. Almost all research students get fellowship from research project funds.
30.	Activities and support from the Alumni Association.	One Alumni meeting was organized in 2011-12 and next meeting will be proposed I In the coming session.
31.	Activities and support from the parent Teacher Association.	A meeting of Parents teachers was called on 18-1-12 at 11:30 AM. It was resolved that students related information should be sent to parents.
32.	Health Services.	Students are provided Health Centre facility by the University

33.	Performance in sports activities.	Nil
34.	Incentives to outstanding sports persons.	None
35.	Students achievements and awards.	<p>1 One student was awarded best Oral Presentation award in 1st International Science Congress.</p> <p>3. Nearly all M. Tech students get placement in Laser based industries/Research institutions/Colleges.</p> <p>4. Many of the M. Sc, M. Tech and M. Phil. pass out students from the Department are pursuing Ph.D's in internationally known institutions.</p>
36.	Activities of the Guidance and Counseling Units.	<p>Discussion with students and research scholars is held to provide information and to encourage them in various scientific activities.</p> <p>Guidance and counseling unit in the school having members are as follows:</p> <ol style="list-style-type: none"> 1. Dr. A.K.Dutta Chairman 2. Dr. Ashutosh Mishra Co –Chairman 3. Dr. G.Mishra Member 4. Dr. Y.Choyal Member
37.	Placements services provided to student.	<p>1.A formal placement cell comprising of Prof A.K.Dutta , Prof. P.Sen , Dr. S.N.Kane and Dr. Y.Choyal is set up.</p> <p>2.Faculty members also take initiative to seek placement for the students.</p>
38.	Development programmes for Non- teaching staff.	Training provided for basic knowledge of computer including MS word & MS excel.

39.	Healthy practices of the institution.	In the beginning of the session a get together for all the students faculty & staff was organized. As a result of this there has been no reported case of ragging in the department. Cultural activities were held twice for teachers and students for improving harmony.
40.	Linkages developed with National/ International, Academic/Research bodies.	Linkages with IUC-DAE-CSR, SGSITS and RRCAT, Indore; BARC, Mumbai; CEERI, Pilani; Etc.
41.	Any other relevant information the institution wishes to add	<ol style="list-style-type: none"> 1. Industrial collaboration of Dr. S.N. Kane with Ruchi Steels. 2. MOU with UGC DAE CSR . A rotating Anode was provided for the development of the experiments. 3. Padma shree Dr. D.D. Bhawalkar gifted vibration free table for carrying out research level experiments on Lasers.

Part C: Detail the plans of the institution for 2012-13:

- Research and Development
- Syllabus will be revised in accordance with the developments in the field of Physics
- New experiments will be developed.
- To strengthen research activities, new research projects will be submitted to various funding agencies.
- Collaborative research activities will be promoted.
- Continued use of OHP and LCD along with blackboard.
- Efforts will be made to improve industry institute relationship.
- Students will be encouraged to carry out projects in research institutions.
- Arrange programs for popularization of science in the schools and colleges

Name & Signature of Coordinator, IQAC

Name & Signature of Head,