

# The Annual Quality Assurance Report (AQAR) of the IQAC School of Physics

## Part – A

### 1. Details of the Institution

1.1 Name of the Institution

SCHOOL OF PHYSICS

1.2 Address Line 1

D.A.V.V. VIGYAN BHAWAN  
,TAKSHILA CAMPUS,

Address Line 2

SCHOOL OF PHYSICS,

City/Town

INDORE

State

MADHYA PRADESH

Pin Code

452001

Institution e-mail address

[www.dauniv.ac.in](http://www.dauniv.ac.in)

Contact Nos.

0731-2467028

Name of the Head of the Institution:

Dr.Ashutosh Mishra

Tel. No. with STD Code:

0731-2467028

Mobile:

9826074985

Name of the IQAC Co-ordinator:

Mobile:

IQAC e-mail address:

1.3 NAAC Track ID (For ex. MHCOGN 18879) **EC/66/RAR/146 dated 21-02-2014**

1.4 Website address:

Web-link of the AQAR:

For ex. <http://www.ladykeanecollege.edu.in/AQAR201213.doc>

1.5 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	Four Star		20/09/2000	“Five Years”
2	2 <sup>nd</sup> Cycle	B grade	2.57 out of 4	16/09/2008	“Five Years”
3	3 <sup>rd</sup> Cycle	A	3.09	21 .2. 2014	“Five Years”
4	4 <sup>th</sup> Cycle	N.A	N.A	N.A	N.A

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

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

1.8 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 \_\_\_\_\_ 2014-15 on 31-07-2015 \_\_\_\_\_
- ii. AQAR \_\_\_\_\_ 2015-16 on \_03-09-2016 \_\_\_\_\_
- iii. AQAR \_\_\_\_\_ (DD/MM/YYYY)
- iv. AQAR \_\_\_\_\_ (DD/MM/YYYY)

1.9 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

1.10 Type of Faculty/Programme

Arts  Science  Commerce  Law  PEI (Phys Edu)

TEI (Edu)  Engineering  Health Science  Management

Others (Specify)

PHYSICS

1.11 Name of the Affiliating University (for the Colleges)

NOT Applicable

1.12 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University University

University with Potential for Excellence  UGC-CPE

DST Star Scheme	<input type="text"/>	UGC-CE	<input type="text"/>
UGC-Special Assistance Programme	<input type="text" value="√"/>	DST-FIST	<input type="text"/>
UGC-Innovative PG programmes	<input type="text"/>	Any other ( <i>Specify</i> )	<input type="text"/>
UGC-COP Programmes	<input type="text"/>		

## **2. IQAC Composition and Activities**

2.1 No. of Teachers	<input type="text" value="08+02(contract)=10"/>		
2.2 No. of Administrative/Technical staff	<input type="text" value="11"/>		
2.3 No. of students	<input type="text" value="114"/>		
2.4 No. of Management representatives	<input type="text" value="NA"/>		
2.5 No. of Alumni	<input type="text" value="110"/>		
2.6 No. of any other stakeholder and community representatives	<input type="text" value="NA"/>		
2.7 No. of Employers/ Industrialists	<input type="text" value="NA"/>		
2.8 No. of other External Experts	<input type="text" value="NA"/>		
2.9 Total No. of members	<input type="text" value="NA"/>		
2.10 No. of IQAC meetings held	<input type="text" value="NA"/>		
2.11 No. of meetings with various stakeholders:	No.	<input type="text" value="NA"/>	Faculty
			<input type="text" value="NA"/>
Non-Teaching Staff	<input type="text" value="NA"/>	Alumni	<input type="text" value="NA"/>
Students		Others	<input type="text" value="NA"/>

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. Nil  International  National  State  Institution Level

(ii) Themes

2.14 Significant Activities and contributions made by IQAC

N A

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
NA	NA

\* 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

**1. 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	√	NA	NA	NA
PG	√	NA	NA	NA
UG	NA	NA	NA	NA
PG Diploma	NA	NA	NA	NA
Advanced Diploma				
Diploma				
Certificate				
Others				
M.Tech ,M.Phil	02	NA	NA	NA
<b>Total</b>	<b>04</b>			
Interdisciplinary	NA	NA	NA	NA
Innovative	NA	NA	NA	NA

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

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	√
Trimester	
Annual	

1.3 Feedback from stakeholders\* Alumni  Parents  Employers  Students   
*(On all aspects)*

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.

Every one year in BOS

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

NA

**Criterion – II**

## 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty	Total	Asst. Professors	Associate Professors	Professors	Others
	08	-	1	7	

2.2 No. of permanent faculty with Ph.D. 08

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
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.4 No. of Guest and Visiting faculty and Temporary faculty NA

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	18	15	
Presented papers			
Resource Persons			

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

Regular interactions of faculties regarding the higher education policies, thrust areas in physics, syllabus, new courses, examinations schedule, research activities, consultancy programmes etc.

2.7 Total No. of actual teaching days during this academic year 184

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

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop 10

2.10 Average percentage of attendance of students 86%

2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
M.Sc Physics	<b>49</b>	12	67	21	nil	100
M.Phil Physics	<b>10</b>	60	40	nil	nil	100
M.Tech laser	<b>13</b>	38	62	nil	nil	100

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

NA

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	NA
UGC – Faculty Improvement Programme	NA
HRD programmes	NA
Orientation programmes	NA
Faculty exchange programme	NA
Staff training conducted by the university	NA
Staff training conducted by other institutions	NA
Summer / Winter schools, Workshops, etc.	NA
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	03	2	1	4
Technical Staff	12	7	4	1



**Criterion – III****3. Research, Consultancy and Extension**

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

Not Applicable
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## 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	13	14	NA	NA
Outlay in Rs. Lakhs	148 lakhs	178 lakhs	NA	NA

## 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	NA	NA	NA	NA
Outlay in Rs. Lakhs	NA	NA	NA	NA

## 3.4 Details on research publications- 76

	International	National	Others
Peer Review Journals	42	10	-
Non-Peer Review Journals	10	-	-
e-Journals	-	-	-
Conference proceedings	05	07	-

## 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	5yrs	UGC SAP	50lakhs	-
Minor Projects	3 yrs	UGC-DAE-CSR,DST,DRDO,MPCST	200.61 Lakhs	200.61 Lakhs
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College				
Students research projects <i>(other than compulsory by the University)</i>				
Any other(Specify)	2yrs	02 Golden Jubilee Fellowship by University	2.88 lakhs	2.88 lakhs
Total			253.49	203.49

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				
Sponsoring agencies	UGC 12 <sup>th</sup> plan				

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 : Not Applicable

From Funding agency  From Management of University/College   
 Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	Not Applicable
	Granted	
International	Applied	Not Applicable
	Granted	
Commercialised	Applied	Not Applicable
	Granted	

3.17 No. of research awards/ recognitions received by faculty and research fellows  
Of the institute in the year: Not Applicable

Total	International	National	State	University	Dist	College

3.18 No. of faculty from the Institution who are Ph. D. Guides 08  
and students registered under them 19

3.19 No. of Ph.D. awarded by faculty from the Institution 11

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

JRF 04      SRF 01      Project Fellows 17      Any other Nil

3.21 No. of students Participated in NSS events: Not Applicable

University level       State level   
National level       International level

3.22 No. of students participated in NCC events: Not Applicable

University level       State level   
National level       International level

3.23 No. of Awards won in NSS: Not Applicable

University level       State level   
National level       International level

3.24 No. of Awards won in NCC: Not Applicable

University level       State level   
National level       International level

3.25 No. of Extension activities organized: Not Applicable

University forum       College forum   
NCC       NSS       Any other

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility: Not Applicable

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**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	744 sqm			
Class rooms	1200sqft			
Laboratories	70x50 sqft			
Seminar Halls	45x20 sqft			
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	Nil			
Value of the equipment purchased during the year (Rs. in Lakhs)	Nil			
Others	Nil			

## 4.2 Computerization of administration and library

Office work carried out through computers. Library equipped with internet and computer facility

## 4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	1515		1000			
Reference Books	1500					
e-Books	Nil					
Journals	500					
e-Journals	Nil					
Digital Database	Nil					
CD & Video	Nil					
Others (specify)	Nil					

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	40	01	yes	IT center				
Added	Nil	Nil	Nil	Nil				
Total	40	01						

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

Central facility is available with IT centre DAVV

4.6 Amount spent on maintenance in lakhs :

i) ICT	NIL
ii) Campus Infrastructure and facilities	NIL
iii) Equipments	Nil
iv) Others	Nil
<b>Total :</b>	Nil

**Criterion – V**

**5. Student Support and Progression**

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Feed back system is followed at the end of every semester in M.Sc ,M.Phil & M tech Programmes

5.2 Efforts made by the institution for tracking the progression

With the help of feed back the suggestion had been incorporated and being implemented in the coming semesters.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
Nil	114	19	Nil

(b) No. of students outside the state

32%

(c) No. of international students

Nil

Men	No	%	Women	No	%

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
65	12	7	26	Nil	110	75	11	02	26	nil	114

Demand ratio 114:114      Dropout % 2

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

GATE NET JEST BARC ,TIFR providing facilities for these exams.

No. of students beneficiaries

10%

5.5 No. of students qualified in these examinations

NET  SET/SLET  GATE  CAT   
 IAS/IPS etc  State PSC  UPSC  Others

5.6 Details of student counselling and career guidance

A committee regarding student counselling and career guidance is existing in the school 7 University.

No. of students benefitted

5.7 Details of campus placement: **Not Applicable**

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed

5.8 Details of gender sensitization programmes: **Not Applicable**

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: Not Applicable

State/ University level  National level  International level

5.9.2 No. of medals /awards won by students in Sports, Games and other events Not Applicable

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	Nil	
Financial support from government	40	As per gov rules
Financial support from other sources	Not Applicable	Not Applicable
Number of students who received International/ National recognitions	Not Applicable	Not Applicable

5.11 Student organised / initiatives : Not Applicable

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

- **To impart knowledge in the field of Physics and educate the students to accept the challenges in the nascent as well as thrust areas of research and development.**
- **To give an exposure to the students about the technological aspects where physics is directly involved.**
- **To strengthen the theoretical background in Physics of those who are already engaged in educational and research organizations at various levels.**
- **To develop research and teaching collaborations with other scientific organizations for the transfer of knowledge.**

#### 6.2 Does the Institution has a management Information System

The management system is developed by systematically distributing the workload to the committees formed by the department. This way all the faculty members share responsibilities. In this respect we have:

1. Departmental IQAC Committee;

2. Purchase Committee:

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

##### 6.3.1 Curriculum Development

1. The comments given by the students along with the inputs from faculty are analyzed by a committee consisting of senior Professors of the Department. The report regularly hosted on IQAC website of University, Indore.

##### 6.3.2 Teaching and Learning

The methods adopted for improvement in learning is through Power Point presentations, this helps in teaching. The teaching process is faster and topic is covered within shorter time, this enables more time for interactive discussion in place of time spent in writing and drawing on blackboard.

6.3.3 Examination and Evaluation

Answer sheets are shown to students after evaluating in tests and end semester examination.

The result has been declared in due course of time. The ordinance 31 of University is completely followed. Faculty member shows the answer sheets to the students before declaring the result.

6.3.4 Research and Development

Faculty members of School of Physics are actively engaged in research and development activities. This will enable the Department to meet the new challenges and will allow the students to have better opportunity for employments in national / international laboratories and organizations.

6.3.5 Library, ICT and physical infrastructure / instrumentation

40 computers are connected with INFLIBNET facility and 02 classrooms and 01 seminar hall is equipped with LCD projector.

6.3.6 Human Resource Management

Not Applicable

6.3.7 Faculty and Staff recruitment

Need of additional teaching faculty, administrative staff and Technical staff and librarian. As per univ rules

6.3.8 Industry Interaction / Collaboration

Arrange lectures of persons from industry. M.Tech Laser Application is a course dealing with technology and hence feasibility of increasing interaction between students of this course and industry can be explored.

6.3.9 Admission of Students

Through Entrance examination followed by Written & Interview process.

6.4 Welfare schemes for

Teaching	As per Univ norms
Non teaching	As per Univ norms
Students	As per Univ norms

6.5 Total corpus fund generated

NA

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	NA	NA		
Administrative	NA	NA	By the Audit Dept of Univ	

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?

Not Applicable

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

Not Applicable

6.11 Activities and support from the Alumni Association

Alumni meet has been organised by the department.

6.12 Activities and support from the Parent – Teacher Association

A parent teacher meet is organised every semester by the dept to gain feed back to and fro from parents and teachers

6.13 Development programmes for support staff

Not Applicable

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

Energy conservation CFL is installed in place of tubes. Light and fan are switched off while leaving the classroom or office. Use of renewable energy Solar power plant installation is planned for UGC XII plan. Water harvesting – Proposal for new building is submitted and it is planned that the water harvesting system will be provided. The university already adopts efforts for Carbon neutrality within Green policy. Cleaning drive of the campus has been carried out. Popular lectures on environment protection are organized and documentaries for the same have been shown to the students and faculty.

**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.

**Workshop on Free electron lasers and International conference (ICRTP) was organized and the proceeding was published in IOP Conference series, IOP U. K.**

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

Not Applicable

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

**Expert seminars are arranged.**

**It is a unique feature of the department that selected students undergoes an exhaustive training at national laboratories of international repute.**

*\*Provide the details in annexure (annexure need to be numbered as i, ii,iii)*

- 7.4 Contribution to environmental awareness / protection

**Cleaning drive of the campus has been carried out.**

- 7.5 Whether environmental audit was conducted? Yes  yes No

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

Not Applicable

8. Plans of institution for next year

- Virtual classrooms, virtual laboratory and simulation experiments.
- To make IRCTP a yearly feature

Name Dr.Prof. Pratima Sen

Name \_\_\_\_\_

\_\_\_\_\_  
Signature of the Coordinator, IQAC

\_\_\_\_\_  
Signature of the Chairperson, IQAC

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