

## Evaluative Report of the Department- A

1. Name of the Department School of Statistics
2. Year of establishment 1971
3. Is the Department part of a School/Faculty of the university? Yes
4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.)

Programmes	Number	Course/Subjects
UG	NIL	-----
PG	1	M.A /M.Sc.(Stat.)
Integrated Masters	NIL	-----
M.Phil.	1	Statistics
Ph.D.	1	Statistics
Total	3	

5. Interdisciplinary programmes and departments involved None
6. Courses in collaboration with other universities, industries, foreign institutions, etc. None
7. Details of programmes discontinued, if any, with reasons None
8. Examination System: Annual/Semester/Trimester/Choice Based Credit System  
Semester
9. Participation of the department in the courses offered by other departments None
10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others)

	Sanctioned	Filled	Actual (including CAS & MPS)
Professor	01	Nil	
Associate Professors	02	01	Promoted to Professor In CAS
Asst. Professors	03	01	Promoted to Professor in CAS

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Dr. Shakti Banerjee	M.Sc., Ph.D.	Prof.& Head	Design of Experiments	24	02
Dr. Snigdha Banerjee	M.Sc., Ph.D.	Professor	Stochastic Processes	32	03

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors in 2011-201  
Dr. C. C. Gujrathi taught in the School of Statistics as Visiting Professor under UGC Scheme.
13. Percentage of classes taken by temporary faculty – programme-wise information about 25% of the only M.Sc. Classes per Semester.
14. Programme-wise Student Teacher Ratio  
M.Sc. (Statistics) -15: 1, Ph.D. (Course Work) - 1:1
15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual  
Academic support: Sanctioned: 04 Filled: 03  
Administrative staff: Sanctioned: 03 Filled: 02
16. Research thrust areas as recognized by major funding agencies Design of Experiments, Stochastic Processes, and Operations Research.
17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise. None
18. Inter-institutional collaborative projects and associated grants received Nil  
a) National collaboration b) International collaboration
19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received. Nil

20. Research facility / centre with
- state recognition
  - ✓ national recognition
  - international recognition
21. Special research laboratories sponsored by / created by industry or corporate bodies  
None
22. Publications:
- Number of papers published in peer reviewed journals (national / international)  
National – 3, International- 22
  - Monographs None
  - Chapters in Books 0
  - Edited Books None
  - Books with ISBN with details of publishers None
  - Number listed in International Database (For *e.g.* Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) None
  - Citation Index – range / average None  
SNIP None
  - SJR None
  - Impact Factor – range / average None  
(0 – 5.47) / 0.44
  - h-index 0.44
23. Details of patents and income generated Nil
24. Areas of consultancy and income generated Nil
25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad None
26. Faculty serving in
- National committees b) International committees c) Editorial Boards d) any other (please specify) None
27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs). ALL
28. Student projects
- percentage of students who have done in-house projects including inter-departmental projects 80%
  - percentage of students doing projects in collaboration with other universities / industry / institute 20%

29. Awards / recognitions received at the national and international level by
- Faculty None
  - Doctoral / post doctoral fellows None
  - Students One Ph.D. Student received Award in M.P. Science Congress.

30. Seminars/ Conferences/Workshops organized and the source of funding (national and international)

Year	special lectures / workshops / seminar
2009-10	<p>Workshop organized:</p> <p>1. National workshop of lectures by Shanti Swarup Bhatnagar Awardees held July 17-19, 2009. Distinguished awardees delivered lectures.</p> <p>2. Workshop on Risk Management and Statistical Software” was organized from 8-10 October</p> <p>2010 in conjunction with Senior Managers – Risk Management Practices, Fullerton India</p> <p>Credit Co. Ltd Mumbai,</p> <p>Special lectures :2009-2010: Lectures organized (Photographs available)</p> <p>Two lectures were delivered by on 11 and 12 January 2010 on the topics</p> <p>1. Prof. D.K. Ghosh of Saurashtra University, Rajkot, Gujrat</p> <p>1 “Efficiency and BIBD”</p> <p>2 Test of hypothesis ...With single degree of freedom</p>
2010-11	<p>Workshop 17 August 2011 “Statistics an attempt to Demystify “</p> <p>DDG (Mr. Praveen Shrivastava ) and ADG (Mr. Manish Sammarwal)</p> <p>Ministry of Statistics and Program Implementation 01</p> <p>Special lectures :Three lectures were organized by and delivered at the School of Statistics, DAVV:</p> <p>1) Prof Shalabh, IIT, Kanpur, Mahalanobis awardee at The Indian Econometrics</p> <p>society conference held from 4-8 January 2011 : “ “ on 7th January 2011 delivered a lecture on “Measurement Error Models””</p> <p>2) Dr. Ajit Kumar Pandey, Amity International Business School, Noida ,</p> <p>delivered lecture on “Sustainability of the Chinese Economic Growth” on 7th January 2011.</p>

	<p>3) Prof. R. N. Mishra, Dept of Statistics, Patna University “Data Envelopment Analysis” on 7th January 2011</p> <p>3. Prof. Umesh Singh, Department of Mathematical Sciences, Banaras Hindu University, Varanasi: “Mathematical Foundations of Probability theory” on 17<sup>th</sup> January 2011.</p>
2011-12	<p>Special lectures :Lectures by MOSPI ( Ministry of Statistics and Program Implementation) Officials organized on 17 August 2011 :</p> <p>DDG(Mr. Praveen Shrivastava ) and DD (Mr. Sammarwal)</p> <p>Ministry of Statistics and Program Implementation” on</p> <p>“Demystifying Statistics” and “Careers in ISS”</p> <p>Seminar ; National Seminar( UGC Supported) on “Statistics and its Applications” was organized on March 16, 2012. : UGC</p> <p>supported National Seminar on “Statistics and its Applications ”</p> <p>was conducted on 16 March. There were registered</p> <p>participants with abstracts from M.P., Maharashtra, U.P., Gujarat, Orissa, Punjab.</p>
2013	<p>One day workshop organized by the school of statistics on March-2013 to Popularise Statistics by N A S A (N.D.).</p>

31. Code of ethics for research followed by the departments

- (1) Honesty, Dedication and Sincerity.
- (2) Encourage the Research Students to carry out independent research work
- (3) Respect to intellectual property rights of the individuals and institutions.
- (4) Acknowledge and motivate the students for better research activities.
- (5) Original research on latest topics.

32. Student profile programme-wise:

Name of the Course (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
M.Sc. I Sem. (Statistics) 2013-15	43	13	13	46%	28.26%
M.Sc. I Sem. (Statistics) 2012-2014	Through CET	05	04	Not Available	
M.Sc. I Sem. (Statistics) 2011-13	36	16	04	44.44%	11.11%

33. Diversity of Students

Name of the Course	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Sc. I Sem (Statistics)	77.77	11.11	11.11	Nil
M.Sc. III Sem. (Statistics)	93.75	Nil	6.25	Nil

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

S. No.	Name	Year	Remark
1.	Mr. Vivek Singh Maravi	2004-06	Civil Services
2.	Mr. Chandra Kumar Vatte	2010-12	Civil Services
3.	Mr. Inder Singh Mujhalda	2011-13	Civil Services
4.	Mr. Himanshy Behare	2006-08	Defence Services
5.	Ms. Nutan Dattatraya	1985	NET
6.	Ms. Swati Agrawal	2004	NET

35. Student progression

Student progression	Percentage against enrolled
UG to PG	NA
PG to M.Phil.	5
PG to Ph.D.	5+7+8
Ph.D. to Post-Doctoral	NIL
Employed <ul style="list-style-type: none"> <li>• Campus selection</li> <li>• Other than campus recruitment</li> </ul>	1+1+1 Almost 95%
Entrepreneurs	1+1

Diversity of staff

Percentage of faculty who are graduates	
of the same university	100% PG
from other universities within the State	0%
from universities from other States	0%
from universities outside the country	0%
Universities outside the country	0%

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period None

38. Present details of departmental infrastructural facilities with regard to

- |   |                  |
|---|------------------|
| a) Library                                    | Yes (1072 Books) |
| b) Internet facilities for staff and students | Yes              |
| c) Total number of class rooms                | Two              |
| d) Class rooms with ICT facility              | One              |
| e) Students' laboratories                     | One              |
| f) Research laboratories                      | One              |

39. List of doctoral, post-doctoral students and Research Associates  
 a) from the host institution/university

S. No.	Name Doctoral Student	Year
1.	Mr. J.P. Parihar Ph.D	1982
2.	Mr. Shakti Benarjee Ph.D.	1985
3.	Mr. A.P. Khurana Ph.D.	1991
4.	Ms. Nutan Dattatraya Ph.D.	1992
5.	Mr. K.K. Chand Ph.D.	1994
6.	Mr. B.L. Mishra Ph.D.	1994
7.	Mr. Jose Philips Ph.D.	2000
8.	Mr. D.K. Bagga Ph.D.	2004
9.	Ms. Shivani Rai Ph.D.	2005
10.	Ms. Sarita Rudra Ph.D.	2006
11.	Mr. Pankaj Chauhan Ph.D.	2011
12.	Ms. Nirmala Savan Ph.D.	2012

- b) from other institutions/universities

S. No.	Name	Year
1.	Ms. Snigdha Banerjee Ph.D. Fellow	1993
2.	Ms. Maya Ingle Ph.D. Fellow	2000

40. Number of post graduate students getting financial assistance from the university. Besides, SC, ST, OBC Students are getting fellowship and Scholarship from State Government. The total no. of Students is : 10

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology. Nil

42. Does the department obtain feedback from  
 a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? Yes, it is been analysed and discussed in the faculty meetings held every two months. Experts at the comprehensive Viva Examination also provide the suggestions.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback? Departmental committee decides unanimously and



acts accordingly.

c. alumni and employers on the programmes offered and how does the department utilize the feedback? Take it by e-mails or personal contacts now.

43. List the distinguished alumni of the department (maximum 10)
1. Dr. Snigdha Banerjee, 1975-1977, Professor, School of Statistics, DAVV
  2. Dr. Shakti Banerjee, 1979-1981, Prof. and Head, School of Statistics, DAVV
  3. Dr. Maya Ingle, 1981-1983, Professor, School of Computer Science, DAVV
  4. Mr. Vishwajeet Ringe, 1981-1983, Senior Technical Director, Govt. of India, New Delhi.
  5. Dr. Nutan S. Mishra, 1983-1985, Associate Professor, Univ. of South-Alabama, Deptt. of Math and Statistics, USA.
  6. Dr. K.K. Chand, 1983-1985, Reader and Head, Department of Statistics, Manipur University.
  7. Dr. Jose Philip, Associate Dean of General Studies, ITT Technical Institute, Lemont, Illinois, USA.
  8. Dr. Shivani Rai Gupta, 1996-1998, Associate Vice President, Operations Optimization at Mphasis, H.P. Company, Bangalore
  9. Dr. Pankaj Chauhan, 2004-2006, Assistant Prof., IMS, DAVV
  10. Dr. Nirmala Sawan, 2004-2006, Assistant Prof., IIPS, DAVV.
44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Year	Special lectures / workshops / seminar
2009-10	<p>Workshop organized:</p> <ol style="list-style-type: none"> <li>1. National workshop of lectures by Shanti Swarup Bhatnagar Awardees held July 17-19, 2009. Distinguished awardees delivered lectures.</li> <li>2. Workshop on Risk Management and Statistical Software” was organized from 8-10 October</li> </ol> <p>2010 in conjunction with Senior Managers – Risk Management Practices, Fullerton India</p> <p>Credit Co. Ltd Mumbai,</p> <p>Special lectures :2009-2010: Lectures organized (Photographs available)</p> <p>Two lectures were delivered by on 11 and 12 January 2010 on the topics</p> <ol style="list-style-type: none"> <li>1. Prof. D.K. Ghosh of Saurashtra University, Rajkot, Gujarat</li> </ol> <ol style="list-style-type: none"> <li>1 “Efficiency and BIBD”</li> <li>2 Test of hypothesis ...With single degree of freedom</li> </ol>

2011-12	Special lectures :Lectures by MOSPI ( Ministry of Statistics and Program Implementation) Officials organized on 17 August 2011 : DDG(Mr. Praveen Shrivastava ) and DD (Mr. Sammarwal) Ministry of Statistics and Program Implementation” on “Demystifying Statistics” and “Careers in ISS” Seminar ; National Seminar( UGC Supported) on “Statistics and its Applications” was organized on March 16, 2012. : UGC supported National Seminar on “Statistics and its Applications ” was conducted on 16 March. There were registered participants with abstracts from M.P., Maharashtra, U.P., Gujarat, Orissa, Punjab.
2013	One day workshop organized by the school of statistics on March-2013 to Popularise Statistics by N A S A (N.D.).

45. List the teaching methods adopted by the faculty for different programmes.  
Using LCD, PPT and Black Board System
46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?  
Through meeting of faculty members
47. Highlight the participation of students and faculty in extension activities.  
Our Students participate in every work of the department through various departmental committees. In fact, School takes their suggestions to design syllabus, time table and examination schedule.
48. Give details of “beyond syllabus scholarly activities” of the department.  
Participation in various conferences, seminar and lectures
49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. No
50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.  
Faculty is involved in publishing their research contributions to journals of repute. Faculty is also involved in giving special lectures in affiliated colleges of the university and other universities of India.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths:

1. Students placement (National and International).
2. Renewed faculty.
3. Student participation in every work in the Department.

Weaknesses:

1. Shortage of opportunities in the area of statistical science.
2. Shortage of teaching faculty.

Challenges:

1. Many of the affiliated colleges of the university are not having graduation programme in statistics.
2. Many of the near- by universities do not have statistics in their graduation program and hence get less number of students in the PG programme in statistics.
3. Attracting students to the discipline of statistics in competition to Engineering, Computer Sciences, Information Technology and Management.

52. Future plans of the department.

Proposed to start a new course in M.Sc. (Applied Statistics) to make the PG degree to application oriented to promote students in the statistics

## Write up of efforts for Quality Sustenance and Assurance in the department- B

The Current global trend amongst students seeking admission to graduation is tilt away from basic sciences to application oriented subjects for easy jobs with special effect in the Mathematical Streams. This very fact is touching the alarming levels in the education Scenario of Madhya Pradesh. This has resulted in declining number of students in the Post Graduate level courses in the Mathematical Sciences.

Statistics is having a very good demand in Central/ State Government, Multinationals, Industry, Research Organisations, Agriculture, Financial Institutions.

In many of the Universities in Madhya Pradesh, they do not have even graduation in Statistics. Hence the subject is with low popularity among the students. This challenge can be met by popularizing this subject among students and making the Course more jobs oriented as required in the Industry. We therefore develop the skill in our Post Graduate Course in Statistics so that our students can take up any job related to Planning/Evaluation , where they use huge data for obtaining possible decisions. We also want to educate and prepare students to accept the national and global challenges and to serve the society through their knowledge of learning. To develop competitive sprits, nurture individual thinking and groom the students in order to meet the requirement of the scientific and technological challenges of the global arena. We train our students in most of the aspects of Statistical Theories, Data Analysis aspects using different statistical software. Our Mission is also to provide good researches in the Statistics. In 2013-14 getting the vacant positions filled we would like to start some certificate/ diploma level courses for graduates with any discipline so that the students can get jobs very easily and this will in turn popularise this subject as a whole.

## Declaration by the Head of the Department- C

I certify that the data included in this Self-Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

Signature of the Head of the institution

(Dr. Shakti Banerjee)

Place: Indore  
Date:20/8/2013

