# <u>GOVT. Maharani Laxmi Bai GIRLS PG COLLEGE,</u> <u>FORT, INDORE (M.P.)</u>

## "Department of Mathematics"



## **Departmental Profile** –

### **HISTORY OF COLLEGE**

- The college was established within the fort in year 1965 (shifted from a nearby school where it was running since 1963).
- The college occupies an area of 13 acres approx. with a built-up area of more than 50,000 sq. feet.
- The college began with a modest strength of 28 streams and now the student strength is 3000 students (three thousand approx) as on 31 august 2013 with the faculty like Arts, science, fine arts, home science, BBA, commerce, computer science & Application and library science.

#### **About Mathematics Department**

Mathematics Department was established in 1963 in this college. Initially Mathematics department was being run along with Physics department after 2005 the department started being run along with Computer department. The department came into an independent existence since June-2013. The department of mathematics was established in 1963 as a part of the existing Govt. M. L. B. girls P.G. College, Fort, Indore, which was incorporated in the Institute in the same year 1963.Our department offers bachelor degree. We have an active undergraduate program that offers a Bachelor of Science degree in Mathematics and Mathematical Sciences. The department offers opportunities for the education in a wide spectrum of areas in Mathematics such as:

(i) Algebra and Trigonometry, Elementary Calculus and Differential Equations, Vector Analysis and Geometry for the students of B. Sc. I year.

(ii) Abstract Algebra, Advanced calculus and Differential Equations for the students of B. Sc. II year.

(iii) Linear Algebra and complex Analysis, Real Analysis and their applications, Discrete Mathematics and applications, Graph Theory, Statistics and Operations for the students of B. Sc. II year.

### Mission :-

The mission of the mathematics department is to provide a supportive environment where students can learn and become experts in mathematics, through dedicated teaching and motivation. Moreover, the department will contribute to the development of students as mathematical thinkers, enabling them to pursue nationally, internationally recognized research in pure and applied mathematics, and to function as productive and responsible citizens. Along with teaching, our faculty members are actively engaged in research by participating in conferences/seminars/collaborative works at the national and international institutes/universities.

#### EQUIPMENTS AVAILABLE IN DEPARTMENT OF MATHS

S.NO	NAME OF EQUIPMENTS	QUANTITY	SPECIFICATION
1	DESKTOP COMPUTER	05	ALL DESKTOPS ARE CORE SERIES WITH ALL PPLICATIONS,ANTIVIRUS & INTERNET ENABELED
2	LASER PRINTER	01	
3	UPS 600VA	05	MINIMUM 45 MINUTES POWER BAKUP
4	MULTIMEDIA PROJECTOR	01	HIGH RESOLUTION QULITY
5	SMART INTERACTIVE BOARD	01	WITH TOUCH SCREEN

## FACULTY DETAILS :-

S. NO	NAME	QUALIFICATION	EXPERIENCE	SPECIALIZATION
1	Mr. V.P. BAIRAGI	M.Sc., M. Phil., Ph. D., & B. Ed.	23 YEARS	"Abstract algebra, Real analysis, Advanced Calculus"

## **Strength in Mathematics Department**

S.No	Name of the programme	No of students
1	B.Sc.I	125
2	B.Sc.II	125
3	B.Sc.III	92

S.No	Year	No. of Student Admitted	No. of Appeared Student	No. of Pass Student	% of Pass Student	Above 60%
1	201415	321	275	250	90	50
2	201516	301	270	242	90	45
3	2016-17	327	315	300	95	60
4	2017-18	358	342	329	95	70
5	2018-19	342	302			

Result	t
<b>I</b> CSUI	L

55					
98					
97					
96					B.Sc.First
95					Year
94					B.Sc.Second
93					B.Sc. Final
92					Year
91					
90					
	2014-	2015-	2016-	2017-	
	15	16	17	18	

## **OPPORTUNITIES** :-

- STUDENTS MAY BE JOIN M.Sc.(MATHS) AFTER COMPLETTION OF B.Sc.
- STUDENTS MAY BE JOIN IN B .E. ALL BRANCHES OF SECOND YEAR II SEMESTER AFTER COMPLETTION OF B.Sc.
- STUDENTS MAY BE JOINING IN MBA AND MCA ALL BRANCHES OF SECOND YEAR II SEMESTER AFTER COMPLETION OF B.Sc.
- AFTER COMPLETION OF B.Sc. MATHS STUDENT IS INTITLED FOR ENTRANCE EXAMS OF PSC, UPSC, IAS AND ANY ANOTHER COMPETATIVE EXAMS.

## **<u>FUTURE PLAN</u>** :-

The Department plans to have a Computing Laboratory for having practical classes in Numerical Methods and Computer Programming (MA401) course and to encourage staff and students for taking challenging problem solving and computing problems through computer programming. It is also an aim of the department to have a departmental library for ease of consulting books and a quick ready reference. The department plans to organize workshops and seminars aimed at the application of Mathematics in Engineering and Technology. It also Endeavour's to hold exhibitions, Quiz competitions, puzzle competitions, Mathematics Olympiad, to start M.Sc. and M. Phil. in Mathematics, etc.

# **Personal Profile**



Name	:	Dr. Vishnu Prasad Bairagi
Date of Birth	:	13 <sup>th</sup> June 1970
Subject	:	Mathematics
Qualification	:	M.Sc., M. Phil., Ph.D.
Technical Qualification	:	PGDCA
Extra Qualification	:	B.Ed.
Ph.D. Topic	:	"A Study of Fixed Point Theorems of Construction Mappings"
Date of First Posting	:	22/11/1996. Through PSC
Type of Appointment	:	PSC Selection 1995
Teaching Experience	:	23 Years
Board of Studies	:	Chairperson (Mathematics UG Level) D.A.V.V. Indore- July 2011-14)
N. f.D	р	

No. of Research Papers Presented & Published In international Journals	-	08
No. Of Research Papers Presented & Published in National Journals	-	01
No .Of Research Papers Presented in International Conference	-	01
No .Of Research Papers Presented in National Conference	-	02
No. of Research Papers Presented National Seminar	-	02
No .Of Research Papers Presented in Rashtriya shodh Sanghosthi	-	01
No. Of National Conferences attended	-	01
No. Of National Workshops attended	-	08
No. Of National Seminars attended	-	06
No .Of Antar-rashtriya shodh Sanghosthi attended	-	02
No. Of Training Workshop Program attended	-	03
No. Of Lectures Delivered in NSS Camp	-	02
No. Of Faculty Development Program attended	-	01

#### **DEPARTMENT OF MATHEMATICS**

### Paper wise Details - Presented in National/International Journals with ISBN/ISSN No.

S. No.	Title of Paper	Name of Authors	Name of Journal	Year of Publication	ISBN/ISSN No.	Impact Factor
01.	Common Fixed Point Theorems in Complex Valued b-Metric Spaces	Prof. V.P. Bairagi Dr. H.V. Badshah Dr. Akhilesh Pariya	Aryabhatta Journal of Mathematics & Informatics Vol. 9 No. 2 Page No. 201-208	July-Dec. 2017	ISSN – 0975-7139	5.856
02.	Common Fixed Point Theorems in Complex Valued Metric Spaces	Prof. V.P. Bairagi Dr. H.V. Badshah Dr. Akhilesh Pariya	Indian Journal of Mathematics & Mathematical Sciences Page No. 291-298	JanJune 2017	ISSN – 0973-3329	3.21
03.	A Fixed Point Theorem for a Contractive Mapping in Dislocated Quasi Metric Space	Prof. V.P. Bairagi Dr. H.V. Badshah Dr. Akhilesh Pariya	Indian Journal of Scientific Research in Mathematical and Statistical Sciences, Vol4, Issue-2, Page No. 14-17	April 2017	ISSN – 2348-4519	1.021
04.	A Common Fixed Point Theorems for Contractive Mapping in Dislocated Quasi Metric Space	Prof. V.P. Bairagi Dr. H.V. Badshah Dr. Akhilesh Pariya	Indian Journal of Mathematical Archive, Vol8, Issue-7 Page No. 184-187	July 2017	ISSN – 2229-5046	7.543
05.	Common Fixed Point Theorems for Weakly Compatible Mappings in Dislocated Metric Space	Prof. V.P. Bairagi Dr. H.V. Badshah Dr. Akhilesh Pariya	Journal of Ramanujan Society of Mathematics and Mathematical Sciences, Vol6, No1, Page No. 97-106	2017	ISSN – 2319-1023	
06.	Some Common Fixed Point Theorems in Dislocated Metric Spaces	Prof. V.P. Bairagi Dr. H.V. Badshah Dr. Akhilesh Pariya	International Journal of Mathematics and its Applications, Vol5, Issue-2C, Page No. 351-357	2017	ISSN – 2347-1557	0.56
07.	Common Fixed Point Theorems for Pairs of Compatible Mappings of Type A	Prof. V.P. Bairagi Dr. H.V. Badshah Dr. Akhilesh Pariya	Indian Journal of Mathematical Archive, Vol8, Issue-2 Page No. 135-140	2017	ISSN – 2229-5046	7.543

S.	Title of Paper	Name of Authors	Name of Journal	Year of	ISBN/ISSN No.	Impact
No.				Publication		Factor
08.	Common Fixed Point of Occasionally	Prof. V.P. Bairagi	Vikram Mathematical Journal,	2014		
	Weakly Compatible Mappings	Dr. Akhilesh Pariya	Vol34, (2014)			
			Page No. 77-84			
09.	Some Fixed Point and Common Fixed	Prof. V.P. Bairagi	International Journal of	August	ISSN – 2320-0294	6.765
	Point Theorems on Ordered Cone Metric	Dr. H.V. Badshah	Engineering Science and	2017		
	Spaces	Dr. Akhilesh Pariya	Mathematics Vol6, Issue-4,			
			Page No. 50-59			

### **DEPARTMENT OF MATHEMATICS**

### Paper wise Details - Presented in National/International Conference/Seminar/Workshop

S. No.	Seminar/ Workshop /Conference	Date	Theme	Organized by	Title of Paper	Presented/ Participated
01.	National Conference	30-31 March 2017	National Conference on Computational Science (NCCS-2017)	Govt. Holkar Science College, Indore	Common Fixed Point Theorems for Contractive Mapping in Dislocated Quasi Metric Space	Presented
02.	National Seminar	27 April 2014	Recent Trends in Applied Sciences and Communication Skills	Department of Applied Science, Rishiraj Institute of Technology, Indore	On Common Fixed Point of Occasionally Weakly Compatible Mappings	Presented
03.	National Conference	17-18 June 2016	Recent Advances in Basic Sciences II	Department of Sciences, Christian Eminent College, Indore	A Fixed Point Theorems for Expensive Type Mappings in Dislocated Quasi Metric Space	Presented
04.	International Conference	07 February 2015	Teaching of Mathematics and Numeracy in 21 <sup>st</sup> Century India	Department of Mathematics, PNB Gujrati Science College, Indore	-	Participated
05.	National Conference	16-17 April 2014	Recent Advances in Basic Sciences	Department of Sciences, Christian Eminent College, Indore	-	Participated
06.	National Workshop	20-21 January 2017	Recent Advances in Mathematics and Its Applications	Department of Mathematics, Shri G.S. Institute of Technology and Science, Indore	-	Participated

S. No.	Seminar/ Workshop /Conference	Date	Theme	Organized by	Title of Paper	Presented/ Participated
07.	National Workshop	11-12 November 2016	Mathematical Modeling and Its Applications	Department of General Engineering, Institute of Engineering and Science, IPS Academy, Indore	_	Participated
08.	National Seminar	16 February 2016	Mathematics for All : Career Opportunity in Mathematics	Department of Mathematics, Mata Jija Bai Govt. P.G. Girls College, Indore	-	Participated
09.	National Seminar	23 June 2017	Quality Issue and Challenges in Teaching and Learning in Higher Education	Department of Sciences, Christian Eminent College, Indore	-	Participated
10.	National Seminar	20 January 2018	Recent Development Science and Their Impact on Religion and Society ; Challenges and Opportunity	St. Paul Institute of Professional Studies, Indore	-	Participated
11.	National Seminar	10-11 Feb. 2019	National Seminar in Memory of Varahmihir on Indian Mathematics and Its Applications	School of Studies in Mathematics, Vikram University, Ujjain	-	Participated
12.	International Congress	15-16-17 Feb. 2019	World Business 'n Economy Congress	World Research Association and SAGE University		

S. No.	Seminar/ Workshop /Conference	Date	Theme	Organized by	Title of Paper	Presented/ Participated
13	National Seminar	21-22 Dec. 2018	National Seminar on The Impact Of GST On Indian Economy	Govt. Arts And Commerce College, Indore M.P.	A Study of impact of Mathematics on Indian Economy with different perspectives.	Presented
14	Workshop	13-19 April 2017	Vartman paridrshya me prasangik aarthik Vishay	Govt. M.L.B. Girls P.G. College Indore	_	Attended
15	Workshop	03-10 Oct. 2018	Srjanatmak lekhan vividha	Govt. M.L.B. Girls P.G. College Indore	_	Attended
16	Workshop	4-9-18 to 10-9-18	Changing environment scenario – problem & solutions	Mata Jijabai Govt. Girls P.G. College, Indore	_	Attended
17	Workshop	25 Feb. 2014	Life style induced risk and health management	Govt. M.L.B. Girls P.G. College Indore	_	Attended
18	Rashtriya Shodh Sangosthi	30-31 Oct. 2014	Hindi me vigyan lekhan evam vigyan patrakarita : Chuntiyan evam sambhavnayen	Govt. M.L.B. Girls P.G. College Indore	_	Attended
19	Antarrashtriya Shodh Sangosthi	20-21 April 2016	Sankrati samrasta aur bhartiya sahitya	Govt. M.L.B. Girls P.G. College Indore	_	Attended
20	National Seminar	15-16 Dec. 2014	Composition of colours	Govt. M.L.B. Girls P.G. College Indore	_	Attended

S. No.	Seminar/ Workshop /Conference	Date	Theme	Organized by	Title of Paper	Presented/ Participated
21	National workshop	10, 11 & 12 Jan. 2015	National workshop Contribution of India in the development of mathematics	Deptt. of Mathematics, Govt. Holkar Science College, Indore	_	Attended
22	Antarrashtriya Shodh Sangosthi	17-18 Feb. 2017	Vigyan, adhyatam aur bhartiya shodh sahitya	Govt. M.L.B. Girls P.G. College Indore	Bhartiya vaidik ganit evam adhyatam	Presented
23	Training Workshop	02-04-18 to 04-04-18	Training workshop on E.V.M. Pre F.L.C. Process	Madhya Pradesh rajya nirvachan aayog, Bhopal	-	Attended
24	Training Program	11-08-14	E.V.M. ke prachar-prasar evam sanchalan vishay par aayojit prasikshan	Up Jila Nirvachan Adhikari, Jila Indore	-	Attended
25	Training Program	23-04 June 2014	Vittiya prabandhan evam prakariya	Sanchalak, Prashashan evam prabandhkiya academy, Madhya Pradesh, Bhopal	-	Attended
26	Rashtriya Shodh Sangosthi	05-02-2015	Vartman samajik paridrshya me kanun ki bhumika	Samsamyik Adhyayan Kendra, Shri Madhya Bharat Hindi Sahitya Samiti Indore	Bhrastachar nirodhya kanun ki swasth samaj ke nirman me bhumika	Presented
27	International workshop	12-13 Feb. 2014	International Yoga Workshop	Shri Atal Bihari Vajpayee Govt. Arts & Commerce College, Indore	-	Attended
28	Workshop	03-02-2017	Bhoutiki adhyayan ek drashtikon	Govt. M.L.B. Girls P.G. College Indore	-	Attended

S. No.	Seminar/ Workshop /Conference	Date	Theme	Organized by	Title of Paper	Presented/ Participated
29	Workshop	21-03-2017	Sansdiya paddhati aur prakariya	Govt. M.L.B. Girls P.G. College Indore	-	Attended
30	NSS Shivir	27-10-2016	Saksharta Vishay par vyakhyan	NSS Unit, Govt. M.L.B. Girls P.G. College Indore at village Limbodagari	_	Lecture delivered
31	NSS Shivir	23-09-2014	Vaidik ganit ke prayog evam rojgar sanvardhan	NSS Unit, Govt. M.L.B. Girls P.G. College Indore at village Limbodagari	-	Lecture delivered
32	Faculty development program	25-02-19 to 08-03-19	Computer basics and E- learning	Computer Deptt., Govt. M.L.B. Girls P.G. College Indore	-	Attended