Shri Shivaji Education Society Amravati's SCIENCE COLLEGE, Congress Nagar, Nagpur Internal Quality Assurance Cell DEPARTMENT OF MATHEMATICS <u>INTERNAL ACADEMIC AUDIT</u> 2022-2023

1. A. Faculty Strength:

Faculty	Recruited	Vacant	Remarks
Regular (UG)	03	02	
CHB(UG)	04	02	
Adhoc (PG)	02 Adhoc	-	
Non-teaching	01	-	

B. Faculty profile

Name	Highest Qualification	Designation	Specialization	Teaching Experience
1. Dr. A. M. Pund	M.Sc., M. Phil, Ph.D.	Assistant Professor	Relativity and Cosmology	11 Years
2. Dr. V.D. Chavan	M.Sc., M. Phil, Ph.D.	Assistant Professor	Relativity and Cosmology	7 Years

2. Students strength

Year	Group	Number of Students Admitted
	PCM	56
	PCSM	56
	SCSM	36
B.Sc. Semester I	ECSM	34
	PEM	28
	CGM	28
	Total-	238
	PCM	54
	PCSM.	55
	SCSM	41
B.Sc. Semester III	ECSM	33
	PEM	27

	CGM	17
	Total-	227
	PCM	54
	PCSM	55
	SCSM	44
B.Sc. Semester V	ECSM	33
	PEM	27
	CGM	17
	Total-	230
M.Sc. I		19
M.Sc. III		23
Ph.D		04
Value Added Program		_

P.G. STUDENT INDUCTION PROGRAMME	NO
ACADEMIC PLANNING	YES
BRIDGE COURSE TAUGHT	YES
REMEDIAL COURSE TAUGHT	NO

3. Students Performance

A. Result Analysis (Winter 2022) UG & PG

Programme	Programme	Number of students	Number of	Pass
Name	Specialization	appeared in the final year examination	students passed in final	Percentage
			year examination	
B.Sc.	Mathematics	221	164	74.20
M.Sc.	Mathematics	23	06	26.08

B.Result Analysis (Summer 2023) UG & PG

Program	Program	Number of students	Number of	Pass
Name	Specialization	appeared in the final year examination	students passed in final year examination	Percentage
B.Sc.	Mathematics	219	167	76.25
M.Sc.	Mathematics	23	08	34.78

C.Achievements

A. (Medals/Awards/Prizes at University level)

Sr. No	Name of the Students	Class	Title
	Nil		

B. Merit Position of UG students in RTMNU

Sr. No	Name of the Students	Merit Position

C. Merit Position of PG students in RTMNU

ſ	Sr. No	Name of the Students	Merit Position
	1.		

4. Students Progression:

Name of Students enrolling	Name of institution	Name of Program admitted
into higher Education	joined	to
	Joined	
UG to PG		
1. Ku. Madhvi M. singh	Shri Ramdeobaba	MCA
	College of Engg. And	
	Management, Nagpur	
2. Ku. Shraddha N. Wath	G.H. Raisoni Institute of	MCA
	Eng. Nagpur	
3. Kalyani V Dhapodkar	Modern College of	MCA
	Engg., Pune	
4.Himanshu Badwaik		
5. Khushi R. Yadav	Shivaji Science College,	M.Sc.
6. Shradha R. Bhonde	Nagpur	
7. Vishnavi D. Baide		
1.Unnati R Bhoyar	Kamla Nehru	M.Sc.
,	Mahavidyalaya Nagpur	
2.Divya G. Khandale	RTM Nagpur University	M.Sc.
	Nagpur	
Sakshi Kale(SCsM)	IFMR Chennai	MBA
PG to Research	-	-
Placement		
On Campus		-

Off Campus		ST.Peter's School Bhandara
1.Sangita Titarmare	Assistant Teacher	
2.Shradha R Bhonde	Indian Post	
3. Saurabha R Bhure	TCS Business Process Services	
4. Ms. Vaishnavi D. Barade	RBI	
5. Khushi R. Yadav	HR Assistant with Back office work A Logiisrics Bhili Durg(C.G)	

(i) Student's publication in Conferences/Journals

Sr. No	Title of the paper	Name of Author	Title of Journal	Year of Publication
1.	Bianchi Type VIO String Cosmological Model in Lyra's Manifold. P.N.379-388	P. M. Lambat	South East Asian J. of Mathematics and Mathematical Sciences. Volume 18, Issue 2, 2022.	August 2022
2	Study of accelerating Universe in the frame work of Bianchi Type-III Scalar Field	Y. V. Rathod	GIS Science Journal	2022

(ii) Student's participation in Seminar/Conferences

Sr.	Name of the Student	Conference type	Participation as
No.			
		International	Paper presentation
1.	Ms. P. M. Lambat	National	Paper Presentation
		National ISC	Paper Presentation
2.	Parimal W. Gaidhane	National ISC	Participation
		International	Paper presentation
		National	Paper presentation

(iii) Students' Extension Activity/Extracurricular activity

Sr.	Name of the activity	Number of students Paricipated
No.		
1.	Two Day's Workshop on PYTHON Programming in	04
	Astronomy, Astrophysics and Cosmology	
	organized by GHRC of Engg., Nagpur	
2.	Celebration of National Mathematical Day, 2022	02
	organized by RTMNU, Nagpur	
3	Two Day's Science Exhibition Vigyan Vari-2023	01
	organized by Shivaji Science College, Amravati.	
4	National Workshop on Introduction to	01
	Mathematica and Algebraic Competitions in	
	General Relativity	
5	RTMNU, Nagpur Ph.D. Course Work on Research	01
	Methodology	
6	RTMNU, Nagpur Ph.D. Course Work on Effective	01
	Writing	
7	The National Academic of Science (NASI), India	01
	(Nagpur Chapter)	

(iv) Participation of Students in online/MOOCs courses/NPTEL/SWAYAM

Sr.	Name of the Students	MOOCs /NPTEL/SWAYAM
No.		
1.	Parimal W. Gaidhane	NPTEL online Exam on Research Methodology in Natural Sciences
2.	Parimal W. Gaidhane	NPTEL online Exam on Introduction Research.

5.Faculty

- I. Research Paper Publications:
 - A.Total Number of publications:
 - i) International 01
 - ii) National 00
 - B. Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or Pub Med/ Indian Citation Index

Title of the Paper	Name of Authors	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self- citation
Bianchi Type VIO String Cosmological Model in Lyra's Manifold. P.N.379-388	P. M. Lambat and A. M. Pund	South East Asian J. of Mathematics and Mathematical Sciences. Volume 18, Issue 2, 2022	August 2022		Department of Mathematics, Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur India	

C.Faculty participation in conferences/seminar/workshop and symposia:

Name of the Faculty	Title of Conference/ Seminar/ workshop Attended	Period	Level International/ National/State / University / College	Whether Presented papers	Whether abstract /paper published in Souvenir/Abstract Book
Dr. A. M. Pund	2 nd National Conference on Recent Trends in Pure and Applied Mathematics organized by Swami Ramanand Teerth Marathwada University, Nanded	28 &29 March, 2023	National/	Yes	yes
Dr. A. M. Pund	National Conference on Recent Trends in Physical and Mathematical Sciences (NCRTPM- 2023) organized by Naryanrao Kale Smruti Model Coollege Karanja Dist. Wardha	05 April 2023	National	yes	No
Dr. A. M. Pund	Indian Science Congress Association	03-07, January 2023	National	No	No
Dr. V T Chauhan	Indian Science Congress Association	03-07, January 2023	National	No	-
Dr. V T Chauhan	Two Day's Workshop PYTHON Programming in	7 – 8 April, 2023	workshop	No	-

	Astronomy, Astrophysics and Cosmology organized by GHRC of				
Dr. V T Chauhan	One week online FDP program on Mathematical software MAPLE with Simulation- 2021`organized by G H Raisoni College of Engineering, Nagpur	25-29 October 2021	International	No	-
Dr. V T Chauhan	MS-DEED Level 1 In person Workshop in Introduction to Innovative Pedagogies for Undergraduate Teachers	17-19 November 2022	National	No	

D. Awards to Faculty members:

Name of	Title of the	Title of	National/International
Teacher	Award	Agency/Conference	
Nil	-	-	

6 . MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Date of MOU	Organization	Purpose/Activity	Student Participate under MOU
Nil	-	-	-

7. Research funds sanctioned and received from various agencies, industry and other organizations

Nature of the	Duration	Name of funding	Amount	Amount
Project		Agency	Sanctioned	Received

Nil	-		

8.Books Published

Name of the Author	Book		Book Edited
	Title	ISBN and Date	Chapter
	1.Mathematics Bridge	Dnyan Path	Book Edited
	Course-I	Publication (India)	
		SBN 13:978-93-	
		94661-10-3	
	2.Mathematics Bridge	Dnyan Path	Book Edited
	Course-II	Publication (India)	
		ISBN 13:978-93-	
Dr. A. M . Pund		94661-11-0	
	3. Mathematics	Himayalaya	Chapter
	B.Sc.Semester VI (CBS)	Publishing House ISO	
	Numerical Methods	9001:2015 CERTIFIED	
	(M13-Optional Paper)	ISO 9001:2015	
		CERTIFIED	

9. Research Guidance by Faculty during the year

Name of the guide	Ph. D		
	Awarded	Submitted	Registered
Dr G. R. Avachar		01	01
Dr. A. M. Pund			02

10. Alumni engagement

a. Contributes significantly to the development of the institution through financial and other supports

11. Action Plan of the Department

- To Celebrate National Mathematical day
- To Organize student's seminar on curriculum
- To Organize Inter Collegiate Quiz Competition in Collaboration with NUMTA
- To Organize Guest Lecture by external experts

- To Organize Poster Competition for UG and PG students.
- 12. Best Practices of the department
 - Counseling to slow learner.
 - Provided Question Bank as per university pattern.

13. SWOT Analysis

Strength

- Qualified & Competent Staff
- Enthusiastic and Encouraging Principal & Management
- No. of options are available with mathematics as one of the subjects
- Good results
- Recognized Research Centre

Weakness

- •Lac of Interest of the students towards graduation in pure science and particularly in Mathematics
- •Average students seek admission in B.Sc. Courses
- •Limited job opportunities

Opportunities

- Remedial teaching is provided to desirous students
- Guidance facility for the preparation of Competitive examinations
- Inter-College Quiz, Seminars, Guest lectures, Science Exhibition, Bhausaheb Jaynti Celebration.
- Research guidance facility available for students.

Challenges

- •Declining interest in pure science subjects
- •Negative aspect of modern culture abetting students presence in classes
- Declining interest in pure science subjects particularly in Mathematics

Date: 18/03/2024

Am

Head Department of Mathematics