

Shri Shivaji Education Society Amravati's  
**SCIENCE COLLEGE,**  
Congress Nagar, Nagpur

**DEPARTMENT OF GEOLOGY**

**Annual Report**

**2020-2021**

**1. Vision and Mission of the Department:**

**Mission**

STUDENT CENTRIC TEACHING –LEARNING PROCESS AND  
PERSONALITY BUILDING OF STUDENTS' FOR CAPACITY  
BUILDING OF THE NATION.

**Vision**

1. All inclusive, innovative, intensely involving teaching-learning process.
2. Encouragement and exposure to students for extracurricular activities.
3. Enhancement in research activity.

**2. A. Faculty Strength:**

| Faculty      | Recruited | Vacant | Remarks |
|--------------|-----------|--------|---------|
| Regular      | 3         | -      |         |
| CHB          | -         | -      |         |
| Ad-hoc       | -         | -      |         |
| Non-teaching | 2         | -      |         |

## B. Faculty profile:

| Name               | Highest Qualification | Designation                         | Specialization               | Teaching Experience |
|--------------------|-----------------------|-------------------------------------|------------------------------|---------------------|
| Dr. K. C. Shah     | <i>M.Sc., Ph.D</i>    | <i>Associate Professor and Head</i> | <i>Environmental Geology</i> | <i>35 Years</i>     |
| Ms. P. B. Zamarkar | M.Sc., SET, PhD*      | Assistant Professor and HOD         | Petrography                  | 2 years             |
| Ms. A. D. Fuladi   | M.Sc.,SET, PhD*       | Assistant Professor                 | Hydrogeology                 | 2 Years             |
|                    |                       |                                     |                              |                     |

## 3. Students strength:

### A. (Summer 2021)

| Year              | Group | Number of Students Admitted |
|-------------------|-------|-----------------------------|
| B.Sc. Semester II | CGM   | 17                          |
|                   | CBG   | 26                          |
|                   | PCG   | 17                          |
|                   | Total | 60                          |
| B.Sc. Semester IV | CGM   | 15                          |
|                   | CBG   | 19                          |
|                   | PCG   | 21                          |
|                   | Total | 55                          |
| B.Sc. Semester VI | CGM   | 27                          |
|                   | CBG   | 37                          |
|                   | PCG   | 32                          |
|                   | Total | 96                          |

### B. (Winter 2020)

| Year             | Group | Number of Students Admitted |
|------------------|-------|-----------------------------|
| B.Sc. Semester I | CGM   | 17                          |
|                  | CBG   | 26                          |

|                     |       |    |
|---------------------|-------|----|
|                     | PCG   | 17 |
|                     | Total | 60 |
|                     |       |    |
| B.Sc. Semester III  | CGM   | 15 |
|                     | CBG   | 20 |
|                     | PCG   | 21 |
|                     | Total | 56 |
|                     |       |    |
| B.Sc. Semester V    | CGM   | 27 |
|                     | CBG   | 36 |
|                     | PCG   | 32 |
|                     | Total | 95 |
|                     |       |    |
| M.Sc. I             |       |    |
| M.Sc. II            |       |    |
| Ph.D.               |       |    |
| Value Added Program |       |    |

#### 4. Students Performance:

##### A. Result Analysis (Winter 2020) UG & PG

| Programme Code | Programme Name  | Number of students appeared in the final year examination | Number of students passed in final year examination | Pass Percentage |
|----------------|-----------------|---|---|-----------------|
| UG             | B.Sc. III SEM V | 95  | 95  | 100 %           |

##### B. Result Analysis (Summer 2021 ) UG & PG

| Programme Code | Programme Name  | Number of students appeared in the final year examination | Number of students passed in final year examination | Pass Percentage |
|----------------|-----------------|---|---|-----------------|
| UG             | B.Sc. III SEM V | 96  | 96  | 100 %           |

##### A. Achievements

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

| Sr.No. | Name of the Students | Class           | Title         |
|--------|----------------------|-----------------|---------------|
| 1.     | Lokita P. Patle      | B.Sc. III (PCG) | Gold medalist |

B- Merit Position of PG Students in RTMNU (for PG Dept. only)

**5. Students Progression:**

| Year | No. of students enrolling into higher Education | Program graduated from |
|------|---|------------------------|
|      | UG to PG  |                        |
|      | PG to Research                                  |                        |
|      | Placement                                       |                        |
|      | On campus                                       |                        |
|      | Off campus                                      |                        |

**(i) Students' publication in Extracurricular activity**

| Title of the Paper | Name of Author | Title of journal | Year of publication |
|--------------------|----------------|------------------|---------------------|
|                    |                |                  |                     |

**(ii) Students' Extension Activity**

| Sr. No. | Name of Student     | Participation   |
|---------|---------------------|---|
|         |                     |   |
| 1.      | Shreya C. Thakre    | Geology Quiz competition                                      |
| 2.      | Parul Dhakate       | Online quiz examination                                       |
| 3.      | Vedant Patwa        | Online quiz examination                                       |
| 4.      | Janhavi S. Kholkute | Career start workshop   |
| 5.      | Shreya Thakre       | Geology Quiz competition                                      |
| 6.      | Bhuvan Pashine      | Workshop on Fundamentals of remote sensing with QGIS hands on |
| 7.      | Parul Dhakate       | Poster competition on world nature conservation day           |
| 8.      | Aditi Chaware       | Content writing master course                                 |
| 9.      | Aditi Chaware       | The fundamentals of digital marketing                         |

|     |                        |   |
|-----|------------------------|---|
| 10. | Akanksha T. Lakhmapure | Online lecture series on Earth Science week 2020            |
| 11. | Anchal Khate           | Online quiz on engineering Geology                          |
| 12. | Aditi S. Joardar       | Covid -19 awareness campaign                                |
| 13. | Aditi S. Joardar       | Online quiz on engineering Geology                          |
| 14. | Yash Jadhav            | workshop on Advances in SAR- Polarimetry and Interferometry |
| 15. | Yash Jadhav            | Online course in Geoinformatics for disaster management     |

**(iii) No. of Students pursuing higher course - 17**

**(iv) Students' participation in seminar -**

**Student of M.Sc. Sem IV Physics participated in conference**

| Sr. No. | Name of Students | Conference type | Participation as |
|---------|------------------|-----------------|------------------|
| 1.      |                  |                 |                  |
| 2.      |                  |                 |                  |
| 3.      |                  |                 |                  |

**(v) Students' Learning course through-on-line**

The Geology Department is enrolled for the noodle centre with the ISRO/IIRS Dehradun.

## 6. Faculty

**I.**

### **II. Research Paper Publications**

**A.** Total Number of publications:

- i) International \_\_\_\_03\_\_\_\_
- ii) National \_\_\_\_01\_\_\_\_

**B. Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index**

| Title of the Paper   | Name of Author   | Title of journal   | Year of publication | Citation Index | Institutional affiliation as mentioned in the publication | Number of citations excluding self-citation |
|--|--|--|---------------------|----------------|---|---|
| 1. Remote Sensing and GIS Approach to the Morphological Characteristics of WRC- 1 Watershed, Chargarh River Basin, Central India.  | Apurva D. Fuladi * and Manish S. Deshmukh*   | Journal Indian Geological Congress                         | June 2020           |                |   |   |
| 2. Lithological studies of sedimentary rocks exposed at Wadi village (Jhura dome), Palanpur area, Kutch mainland, Gujarat.   | Ms. Apurva D. Fuladi*<br>Ms. Pushpa Zamarkar**   | International Journal Of Science Technology And Management | April 2021          |                |   |   |
| 3. The study of Quaternary sediments of the Manjra River, Near Chousala, Dist. Beed.   | Ms. Pushpa Zamarkar*<br>Ms. Apurva D. Fuladi**   | International Journal Of Science Technology And Management | April 2021          |                |   |   |
| 4. Short lived alkaline magmatism related to the Reunion plume in the Dewccan large igneous province: inferences from petrology, <sup>40</sup> Ar. / <sup>39</sup> Ar geochronology and paleomagnetism of lamprophyre from the Sarnu Dandali alkaline igneous complex. | Ashish Dongre, P. S. Dhote, P. Zamarkar, S. J. Sangode, G. Belyanin, D. C. Meshram, S. K. Patil, Aaheri Karmakar, Lokant Jain. | Geological Society, London, Special Publications           | July 2021           | 1              |   |   |

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

| <b>Name of the Faculty</b>         | <b>Title of Conference/ Seminar/ workshop Attended</b>   | <b>Period</b>             | <b>Level International/ National/ State /University /College</b> | <b>Whether Presented papers</b> | <b>Whether abstract /paper published in Souvenir/Abstract Book</b> |
|------------------------------------|--|---------------------------|--|---------------------------------|--|
| A. D. Fuladi* and M. S. Deshmukh** | International Conference On Emerging Technologies And Adaptation In Geotechnical Engineering (Meenakshi Sundararajan Engineering College Department Of Civil Engineering, (Managed by I.I.E.T Society) Approved By AICTE & Accredited By NBA, New Delhi Recognised By The Government Of Tamil Nadu And Affiliated To Anna University, Chennai) | 8 May 2021                | International  | Yes                             |  |
| A. D. Fuladi                       | e-Training on "Application of Remote Sensing & GIS in Disaster Management" conducted by PGRS Division of GSI Training Institute, Hyderabad   | 23.04.2021 to 30.04.2021. | National   |                                 |  |
| A. D. Fuladi                       | e-training on “ Refresher course on Integrated Thematic mapping in Sausar/ Sakoli Belt” conducted by RTD, CR, GSITI, Nagpur.   | 20.10.2020 to 26.10.2020. | National   |                                 |  |
| P. B. Zamarkar                     | e-training on “Basics of Structural Geology”   | 25-27 March 2021          | National   |                                 |  |

|                |  |                      |               |     |     |
|----------------|--|----------------------|---------------|-----|-----|
| P. B. Zamarkar | E- International Conference on “Queens of Era- 2021” Paper entitled “The study of Quaternary sediments of the Manjra River, Near Chousala, Dist. Beed.”  | 23 March 2021        | International | No  | yes |
| A. D. Fuladi   | E- International Conference on “Queens of Era- 2021” Paper entitled “Lithological studies of sedimentary rocks exposed at Wadi village (Jhura dome), Palanpur area, Kutch mainland, Gujarat”             | 23 March 2021        | International | Yes | yes |
| A. D. Fuladi   | National e-Conference on Advanced Modelling and Innovations in Water Resources Engineering (AMIWRF-2021), organised by the Department of Civil Engineering. National Institute of Technology Jamshedpur. | 20-21 February 2021  | National      | -   | -   |
| P. B. Zamarkar | UGC sponsored online faculty induction programme.  | 23 Nov - 23 Dec.2020 | UGC           |     |     |
| A. D. Fuladi   | UGC sponsored online faculty induction programme.  | 23 Nov - 23 Dec.2020 | UGC           |     |     |

#### **D. Awards to Faculty members**

#### **7. 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 |
|-------------|--------------|------------------|-------------------------------|
|             |              |                  |                               |
|             |              |                  |                               |

#### **8. Research funds sanctioned and received from various agencies, industry and other organizations**

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



## 9. Books Published

|   | Book  |               | Book Edited |
|---|-------|---------------|-------------|
|   | Title | ISBN and Date | Chapter     |
| - | -     | -             | -           |
|   |       |               |             |
|   |       |               |             |

## 10. Research Guidance by Faculty during the year

| Name of the guide | Ph.D    |           |            |
|-------------------|---------|-----------|------------|
|                   | Awarded | Submitted | Registered |
| -                 | -       | -         | -          |
|                   |         |           |            |
|                   |         |           |            |

## 11. Alumni engagement

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

|   |   |   |   |
|---|---|---|---|
| - | - | - | - |
|   |   |   |   |

b. Alumni contribution during the year

## 12. Action Plan of the Department

1. Regular teaching – learning as per the process in force.
2. To make advancement in teaching-learning and research facilities while maximum utilization of already available resources.
3. Conduct of add-on courses in Groundwater exploration.
4. Constitution of the executive body and editorial board of the Geological Society of the department and Geological Wall Magazine, respectively. Encouraging and guiding students to take up various activities and exams.
5. To take up
  - Research work for a research degree.
  - Publications
  - Research Projects
6. To attend conferences, seminars And workshops.
7. To organize Guest Lectures, Field Tours, Organizational Visits and Extension Activity.

### 13. Best Practices of the department

- Students Counseling
- Involve students in high density reading and writing instruction
- Demonstrate instructional balance in learning
- Teacher – Parents meeting
- Involvement in extracurricular activity

### 14. SWOT Analysis

|             |   |
|-------------|---|
| Strength    | <ul style="list-style-type: none"><li>· Infrastructure</li><li>· Projector</li><li>· Audio-visual</li><li>· Advanced Equipments Geochemical Lab and Instruments</li></ul> |
| Weakness    | M.Sc. Research Centre, Offline Classes  |
| Opportunity | Research  |
| Threat      | Increasing competition, Changing Government Policy and acceptance<br>Pandemic threat  |

## 15. Student Progression

Following number of students qualified IIT-JAM / M.Sc. entrance and enrolled for higher courses :

### IIT JAM qualified students: 05

1. Vaishnavi M. Raut- IIT JAM (795 rank)
2. Mohit Shivane (898)
3. Namisha Badwaik (793)
4. Gitika Deshmukh
5. Sherya C. Kothare

| Year    | No. of students enrolling into higher education | Programme graduated from | Name of Institution joined                 | Name of programme admitted to |
|---------|---|--------------------------|--|-------------------------------|
| 2020-21 | 01  | B.Sc                     | Geology Department,<br>NIT<br>ROURKELA     | M.Sc.                         |
| 2020-21 | 01  | B.Sc                     | Geology Department,<br>NIT Durgapur        | M.Sc.                         |
| 2020-21 | 01  | B.Sc                     | Geology Department,<br>IIT<br>BHUBANESHWAR | M.Sc.                         |
| 2020-21 | 01  | B.Sc                     | Geology Department,<br>IIT ISM DHANBAD     | M.Sc.                         |

| Year    | No. of students enrolling into higher education | Programme graduated from | Name of Institution joined                   | Name of programme admitted to |
|---------|---|--------------------------|--|-------------------------------|
| 2020-21 | 02  | B.Sc.                    | Geology Department,<br>Savitribai Phule Pune | M.Sc.                         |

|              |    |      |   |         |
|--------------|----|------|---|---------|
|              |    |      | University, Pune  |         |
| 2020-21      | 02 | B.Sc | Geology Department,<br>Government Institute of<br>Science, Aurangabad | M.Sc.   |
| 2020-21      | 08 | B.Sc | Geology Department,<br>RTMNU, Nagpur                                  | M.Sc.   |
| 2020-21      | 01 | B.Sc | Geology Department,<br>BHU, Varanasi                                  | M.Sc.   |
| 2020-21      | 01 | B.Sc | K. J. Somaiya College<br>of Science and<br>commerce, Mumbai           | M.Sc.   |
| 2020 -<br>21 | 01 | B.Sc | Sagar University  | M. Tech |

| <b>Year</b>   | <b>No. of<br/>students<br/>enrolling<br/>into<br/>higher<br/>education</b> | <b>Programme<br/>graduated<br/>from</b> | <b>Name of Institution<br/>joined</b>          | <b>Name of<br/>programme<br/>admitted to</b> |
|---------------|--|---|--|--|
| 2020-<br>2021 | 01   | B.Sc                                    | Intern in<br>Kumaun<br>University,<br>Nainital | Internship                                   |