



Rayat Shikshan Sanstha's

Mahatma Phule Mahavidyalaya, Pimpri, Pune-411 017

Reaccredited at 'A++' Grade with CGPA: 3.61 by NAAC Bengaluru

DST-FIST funded /An ISO 9001:2015 Certified College

Affiliated to Savitribai Phule Pune University, Pune (PU/PN/ACS/053)

Criteria II- 3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of Knowledge

| Sr. No. | Name of the Facility/Activity |
|---------|---|
| 1 | Research Laboratory |
| 2 | IKS- Short term course in Modi Script |
| 3 | Innovation Incubation cell |
| | Participation in Innovation day |
| | Quiz competition on Innovation and Entrepreneurship |
| 4 | IPR Cell activity |
| | Short term Course in A certificate course in Career Prospects in Intellectual Property Rights |
| 5 | Avishkar Research Competition |

Research Facilities-Well Equipped Laboratories



Thermocycler



Gel Electrophoresis Unit



Laminar Air Flow



Gel Documentation System

Equipments Purchased under DST – FIST Scheme



S K Vaghre Complex, Pimpri Gaon, Pimpri Colony, Pimpri-Chinchwad, Maharashtra 411017, India
Latitude 18.6107509° Longitude 73.8019937°
Local 04:26:22 PM Altitude 498.9 meters
GMT 10:56:22 AM Wednesday, 11-08-2021

Research Grade Weighing Balance



S K Vaghre Complex, Pimpri Gaon, Pimpri Colony, Pimpri-Chinchwad, Maharashtra 411017, India
Latitude 18.6107509° Longitude 73.8019937°
Local 04:26:04 PM Altitude 498.9 meters
GMT 10:56:04 AM Wednesday, 11-08-2021

Digital pH Meter



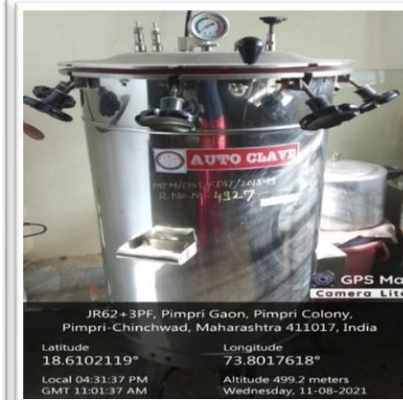
S K Vaghre Complex, Pimpri Gaon, Pimpri Colony, Pimpri-Chinchwad, Maharashtra 411017, India
Latitude 18.6107078° Longitude 73.80202°
Local 04:27:49 PM Altitude 499.2 meters
GMT 10:57:49 AM Wednesday, 11-08-2021

Vacuum Pump Assembly



S K Vaghre Complex, Pimpri Gaon, Pimpri Colony, Pimpri-Chinchwad, Maharashtra 411017, India
Latitude 18.6107457° Longitude 73.8019938°
Local 04:26:53 PM Altitude 498.9 meters
GMT 10:56:53 AM Wednesday, 11-08-2021

Visible Spectrophotometer



JR62+3PF, Pimpri Gaon, Pimpri Colony, Pimpri-Chinchwad, Maharashtra 411017, India
Latitude 18.6102119° Longitude 73.8017618°
Local 04:31:37 PM Altitude 499.2 meters
GMT 11:01:37 AM Wednesday, 11-08-2021

Autoclave



Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17
A Certificate Course in Modi manuscript

Class: S.Y.B.A./ T.Y.B.A

Coordinator : Mr. Sandeep Pundlik Nannaware

❖ **Objectives :**

- This paper is designed to introduce the students to the Modi Script.
- It will get students acquainted with details of the Modi Script.
- It will enable students to understand Maratha History in detail.

| Sr. No. | Name of the Topic | Number of Lectures | | Credits |
|---|---|--------------------|-----------|-----------|
| | | Theory | Practical | |
| I. | Modi Script Introduction : | | | 02 |
| | a) Modi Script – Writing & Reading | 02 | 02 | |
| | b) Modi Script emergence, history, usage , | 02 | 02 | |
| | c) Vowels ,Consonant | 02 | 02 | |
| | d) Numbers | 02 | 02 | |
| II. | Dating Method Kalaganana – | | | 02 |
| | a) Hindu | 02 | 02 | |
| | b) Muslim SAka | 02 | 02 | |
| | c) Hijri Fasali | 02 | 02 | |
| III. | Skills in Interpreting modi | | | 02 |
| | a) Types of modi documents | 02 | 01 | |
| | b) Linguistic features of Modi Documents. | 02 | 01 | |
| | c) Study of Documents | 02 | 02 | |
| IV. | Reading practice | | | 02 |
| | a) Short Forms | 02 | 02 | |
| | b) Farasi words | 02 | 02 | |
| | c) Archives & Types of Documents, Research Opportunities | 02 | 02 | |
| V. | | | | 04 |
| | a) Study various types of documents, read | 01 | 02 | |
| | b) interpreted and transcript into devnagari, | 01 | 02 | |
| | c) historical modi documents in Maratha history such as letters, farmers' records etc | 02 | 02 | |
| Total Theory , Practical and Credits | | 30 | 30 | 04 |

❖ **Learning Outcomes :**

- ❖ Students will get an overall understanding of the Modi Script.
- ❖ They will be able to know the history of the Marathas.
- ❖ They will be able to read and write in Modi Script

❖ Job Opportunities :

- Document reading
- Self Employment
- Tourist guide
- Archives

❖ Projects :

- Modi manuscript project
- Scope of tourism industry

❖ Reference Books :

- ❖ Bharatiya Lipinche Maulik Eakarup – Pandit GanapatisastriHebbar published by Maharashtra Rajya Sahitya Ani Sanskruti Mandal.1988
- ❖ Chala Shikuya Modi Aapan., Mhatre Krushnaji, Modi LipiShikshan Mandal, Mumbai, 1993, 2003,2009
- ❖ Sahaj sopi Modi Lipi, Tilak Shreekrushna L., Vyasa creation, Thane
- ❖ Sopi Modi Patre, Lawate Mandar & Soman Bhasvati, Adijit Pub. Pune, 2013
- ❖ Shivachhatrapatinche Patre, Vol. I & II, Kulkarni Anuradha, Param Mitra, 2011
- ❖ Modi Lipi , Mali Navinkumar, 11. Tumhich Modi Shika, Kulkarni M.R. , Diamond Publi, Pune
- ❖ Tumhich Modi Shika : Author: Madhukar Kulkarni
- ❖ Modi Vachan Lekhan : Author: G. R. Walimbe
- ❖ Modi Shika : Author: Gangadhar Mahambare
- ❖ Lekhanprashasti : Author: Anuradha Kulkarni
- ❖ Sahaj Sopi Modi Lipi: Author: Shrikrushna Lakshman Tilak

❖ Web References :

www.modilipi.com

❖ Board of Studies:

| Sr.No. | Name | Designation | Mobile No. |
|--------|--------------------------|-------------------------------------|------------|
| 1. | Prin. Dr.kailash Jagdale | Principal and Chairman | 9767222711 |
| 2. | Dr.Kamayani Surve | Chief Co-ordinator, Add-on-Courses | 9975187771 |
| 3. | Prof. Sanjay Nangare | Faculty Coordinator, Add-on-Courses | 8600925994 |
| 4. | Prof. Sandeep Nannaware | Course Coordinator(History) | 8975334040 |
| 5. | Prof.AniketKhatri | Placement Officer | 9371357976 |
| 6. | Dr.Suraj Sonawane | Subject Teacher | 9028575117 |
| 7. | Dr. Sujit Shinde | Professional Expert | 7038572666 |
| 8. | Mr. Ravindra Jagdade | Professional Expert | 9552625961 |

Co-Coordinator

Chief Co-ordinator
Short Term Courses
Mahatma Phule Mahavidyalaya,
Pimpri, Pune-411 017.



Principal
PRINCIPAL
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.



Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17
Certificate/Value Added/Add-on- Courses (2023-24)

Faculty Remuneration

Name of the Course: A Certificate Course in Modi manuscript
Name of the Faculty: Mr. Ravindra Bhausaheb Jagdale

| Sr. No. | Date | Time | Unit Taught | Signature |
|---------|------------|---------------------|--|-----------------|
| 1 | 02/09/2023 | 4.00 pm to 06.00 pm | Modi Script Introduction : | <i>Ravindra</i> |
| 2 | 09/09/2023 | 4.00 pm to 06.00 pm | Modi Script – Writing & Reading | <i>Ravindra</i> |
| 3 | 15/09/2023 | 4.00 pm to 06.00 pm | Modi Script emergence, history, usage, | <i>Ravindra</i> |
| 4 | 16/09/2023 | 4.00 pm to 06.00 pm | Vowels ,Consonant | <i>Ravindra</i> |
| 5 | 23/09/2023 | 4.00 pm to 06.00 pm | Numbers | <i>Ravindra</i> |
| 6 | 29/09/2023 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 7 | 06/10/2023 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 8 | 07/10/2023 | 4.00 pm to 06.00 pm | Dating Method Kalaganana – | <i>Ravindra</i> |
| 9 | 13/10/2023 | 4.00 pm to 06.00 pm | Hindu | <i>Ravindra</i> |
| 10 | 14/10/2023 | 4.00 pm to 06.00 pm | Muslim Saka | <i>Ravindra</i> |
| 11 | 20/10/2023 | 4.00 pm to 06.00 pm | Hijri Fasali | <i>Ravindra</i> |
| 12 | 21/10/2023 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 13 | 27/10/2023 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 14 | 28/10/2023 | 4.00 pm to 06.00 pm | Skills in Interpreting modi | <i>Ravindra</i> |
| 15 | 01/12/2023 | 4.00 pm to 06.00 pm | Types of modi documents | <i>Ravindra</i> |
| 16 | 02/12/2023 | 4.00 pm to 06.00 pm | Linguistic features of Modi Documents. | <i>Ravindra</i> |
| 17 | 08/12/2023 | 4.00 pm to 06.00 pm | Study of Documents Practical | <i>Ravindra</i> |
| 18 | 09/12/2023 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 19 | 15/12/2023 | 4.00 pm to 06.00 pm | Reading practice | <i>Ravindra</i> |
| 20 | 16/12/2023 | 4.00 pm to 06.00 pm | Short Forms | <i>Ravindra</i> |
| 21 | 23/12/2023 | 4.00 pm to 06.00 pm | Farasi words | <i>Ravindra</i> |
| 22 | 30/12/2023 | 4.00 pm to 06.00 pm | Archives & Types of Documents, Research Opportunities | <i>Ravindra</i> |
| 23 | 06/01/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 24 | 20/01/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 25 | 27/01/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 26 | 03/02/2024 | 4.00 pm to 06.00 pm | Study various types of documents, read | <i>Ravindra</i> |
| 27 | 17/02/2024 | 4.00 pm to 06.00 pm | interpreted and transcript into devnagari, | <i>Ravindra</i> |
| 28 | 24/02/2024 | 4.00 pm to 06.00 pm | historical modi documents in Maratha history such as letters, farmers' records etc | <i>Ravindra</i> |
| 29 | 02/03/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 30 | 09/03/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 31 | 15/03/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 32 | 16/03/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 33 | 21/03/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |
| 34 | 22/03/2024 | 4.00 pm to 06.00 pm | Practical Total = 70 Hrs | <i>Ravindra</i> |
| 35 | 23/03/2024 | 4.00 pm to 06.00 pm | Practical | <i>Ravindra</i> |

Ravindra
Faculty

Ravindra
Coordinator

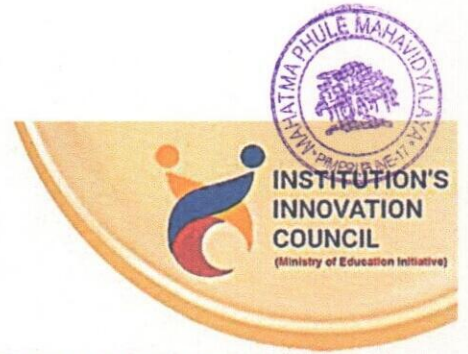
Ravindra
HEAD

Ravindra
Chief Coordinator

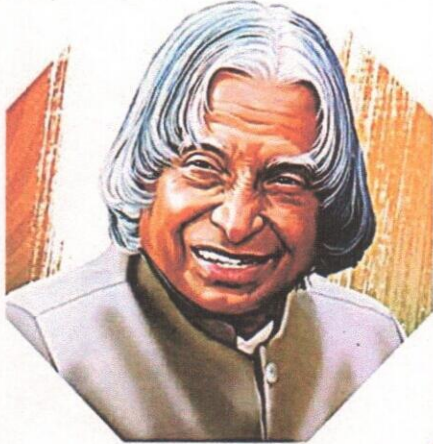


Ravindra
Principal
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.

Department of History Short Term Course
 Mahatma Phule Mahavidyalaya, Pimpri, Pune-411 017



SPPU RESEARCH PARK FOUNDATION & INSTITUTION'S INNOVATION COUNCIL
celebrates



Innovation Day 2023

" Dream, Dream, Dream.
Dreams transform into thoughts and thoughts result into action."

Former President Of India
DR. A.P.J. Abdul Kalam

15 October 1931- 27 July 2015

**Join us for the day of innovation,
inspiration, and education as we showcase
the latest tech trends and innovations.**

FREE FOR EVERYONE



SATURDAY ,14 OCTOBER 2023

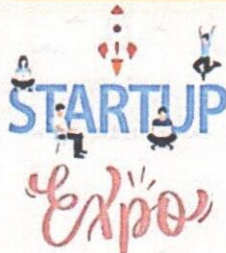


SPPU RESEARCH PARK FOUNDATION , OPPOSITE HEALTH CENTER, SPPU



STARTS AT 10.30 AM ONWARDS

Event Highlights



meet our innovators



REGISTER NOW

CONTACT US

Mr. Ajinkya Terkar
Innovation Officer, SPPU RPF
+91-7972772129



Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune
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Affiliated to Savitribai Phule Pune University, Pune (PUPN/ACS/053)

Innovation and Incubation Cell

Notice

Date: 11/10/2023

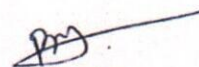
All the students of M.A., M.Sc. and M. Com. are hereby informed that SPPU Research Park Foundation and Institution's Innovation Council is celebrating Innovation Day 2023 on Saturday, 14th October 2023 at 10:30 am. On this occasion Expert's talk, startup'expo and meet our innovators program has been arranged at SPPU Research Park Foundation. All the P.G. students must register and actively participate in these activities. Register through the below given link or QR code. Once registration is done send screenshot to Dr. P. A. Bharad (Mob. 9527303470).

Link for registration-

https://docs.google.com/forms/d/e/1FAIpQLScq9RPtYhC_J4_xLu8Che1R3Sc0f1ATV8IByjXC5_PUCLlhSw/viewform

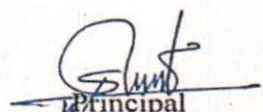
QR Code-




Chairman

Innovation and Incubation Cell




Principal
PRINCIPAL
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.




Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune
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Affiliated to Savitribai Phule Pune University, Pune (PU/PN/ACS/053)*

Innovation and Incubation Cell

Notice

Date: 13/10/2023

All the students who have registered for celebration of Innovation Day-2023 organized by SPPU Research Park Foundation and Institution's Innovation Council are hereby informed that students must be present at 10 am at SPPU Research Park Foundation, Pune. Students should present in uniform, carry valid Id-card of college, apron and tiffin.


Chairman

Innovation and Incubation Cell




Principal
PRINCIPAL
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017

**Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17**

Innovation and Incubation Cell

Participation in Innovation Day 2023 Celebration

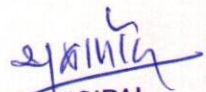
Report

Celebration of Innovation Day 2023 was organized by Savitribai Phule Pune University (SPPU) Research Park Foundation, SPPU, Pune on 14th October 2023 at 10:30 am in SPPU Research Park Foundation. The participation in Innovation Day 2023 was coordinated by Innovation and Incubation Cell. Innovation day celebration started with the inauguration of startup expo by students which was followed by experts talks. The introductory speech was given by Dr. A. D. Shaligram. The first keynote lecture was delivered by Dr. Prakash R. Apte (ENTC, COEP). The title of his talk was "Systematic Innovation for solving the Right Problem". He also highlighted the difference between Innovation and Invention. He explained systematic innovation with the example of shaving razor. He described from old metal razor to today's Gillette guard razor. The second speaker was Dr. Y. M. Borse (Department of Mathematics, SPPU, Pune). His talk was entitled "History of Indian Mathematics". In his marvelous talk he explained detailed about Indian mathematician from Aryabhata to Madhava and their research in India. The Innovation Day celebration ended with valedictory function with the distribution of certificates to participants. 5 Students and 1 faculty from college participated in Innovation Day 2023 celebration.


Chairman

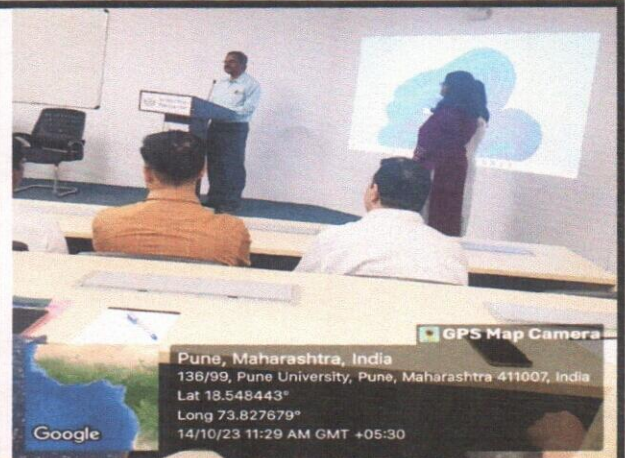
Innovation and Incubation Cell



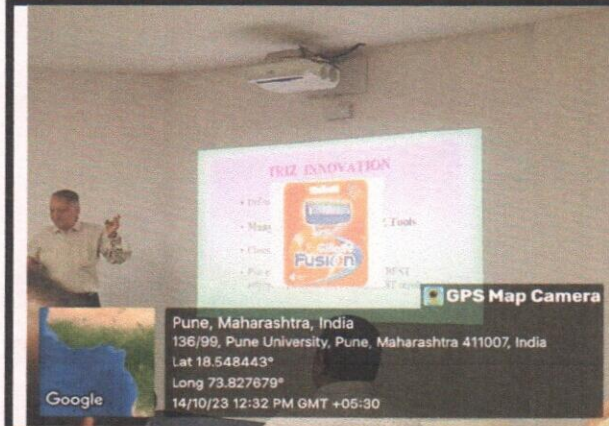

PRINCIPAL
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.



Inauguration of Innovation Day 2023



Introductory Speech by Dr. A. D. Shaligram



First Key note speaker Dr. P. R. Apte




Second Speaker Dr. Y. M. Borse




Faculty and Students participated in Innovation Day 2023 organized by SPPU Research Park Foundation, SPPU, Pune

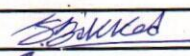

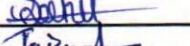





Chairman
Innovation and Incubation Cell





PRINCIPAL
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.

Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17
Innovation and Incubation Cell
List of Students Participated in Innovation Day at SPPU, Pune
Date- 14.10.2023

| Sr. No. | Name of Student | Class | Mobile Number | Signature |
|---------|--------------------|-----------|---------------|---|
| 1 | Swapnil Bikkad | M. Sc. II | 9175041069 |  |
| 2 | Pruthviraj Bhusnar | M. Sc. II | 9075962052 |  |
| 3 | Sahil Shinde | M. Sc. II | 9325358567 |  |
| 4 | Ashish Jaiswal | M. Sc. II | 7666065807 |  |
| 5 | Payal Panware | M. Sc. II | 7276270690 |  |




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MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.



Rayat Shikshan Sanstha's

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

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Affiliated to Savitribai Phule Pune University, Pune (PU/PN/ACS/053)

Date- 22.08.2023

Notice

Entrepreneurship Development Committee and Innovation and Incubation Cell

Organized

Quiz Competition

All the students are hereby informed that on the occasion of 'World Entrepreneur's Day', Entrepreneurship Development Committee and Innovation and Incubation Cell has organized a quiz competition on Innovation and Entrepreneur. The quiz is organized Tuesday, 29th August 2023 at 09:00 am in Seminar hall. Those students who wish to participate in quiz competition, register through the google form. For any further details contact Dr. P. A. Bharad (Chemistry Department), Ms. Ashwini Mohite (Zoology Department) and Mrs. Rajashri Nimbalkar (Microbiology Department).

Google form link- <https://forms.gle/2FjTTTTYJAs5yV6iz8>




Principal
PRINCIPAL
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.



Rayat Shikshan Sanstha's

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

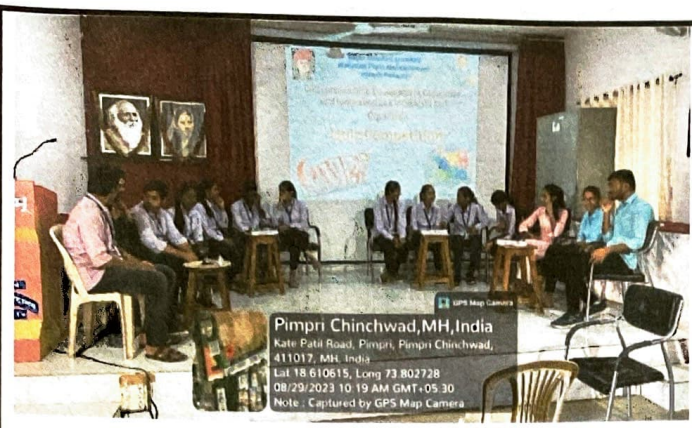
**Entrepreneurship Development Committee and Innovation and
Incubation Cell**

Organized

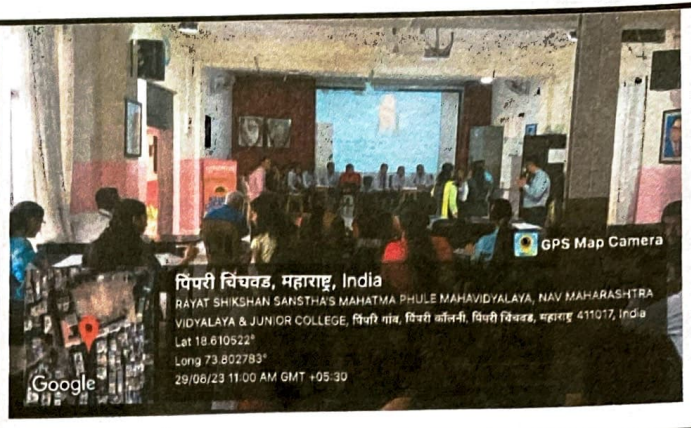
Quiz Competition (2023-24)

Report

On occasion of 'World Entrepreneur's Day', Entrepreneurship Development Committee and Innovation and Incubation Cell organized various competitions between 21st August 2023 and 31st August 2023. On this occasion a quiz competition was also organized on Innovation and Entrepreneurship on 29th August 2023 at 09:30 am in Seminar hall. This competition was coordinated by Dr. P. A. Bharad and members of Innovation and Incubation Cell under the guidance of Dr. Dattatray Hingane, Dr. Shubhada Londhe, Mr. S. B. More and Prof. Dr. Madhav Sarode. 16 students participated in quiz competition in four groups (A,B,C,D) (4 student per group). The competition was divided into 3 rounds. The first round was question answer round in which 2 questions was asked to each group. The second round was visual round in which visuals was shown and the students answered the question. The third round was rapid fire round in which 5 questions asked in one 60 seconds. The quiz was anchored by Dr. P. A. Bharad, Ms. Rajashri Nimbalkar and Ms. Ashwini Mohite. Prof. Dr. Kamayani Surve and Ms. Suvarna Gaikwad worked as jury. Prof. Dr. Madhav Sarode (Principal), Mr. S. B. More (Vice-Principal, Science), Dr. Dattatray Hingane, Dr. Shubhada Londhe, Mr. Prasad Bathe were present for the quiz.



Pimpri Chinchwad, MH, India
 Katti Batti Road, Pimpri, Pimpri Chinchwad,
 411017, Maharashtra, India
 Lat 18.610522°
 Long 73.802783°
 08/29/2023 10:19 AM GMT+05:30
 Note: Captured by GPS Map Camera



पिंपरी चिंचवड, महाराष्ट्र, India
 RAYAT SHIKSHAN SANSTHA'S MAHATMA PHULE MAHAVIDYALAYA, NAV MAHARASHTRA
 VIDYALAYA & JUNIOR COLLEGE, पिंपरी गांव, पिंपरी कॉलनी, पिंपरी चिंचवड, महाराष्ट्र 411017, India
 Lat 18.610522°
 Long 73.802783°
 29/08/23 11:00 AM GMT +05:30

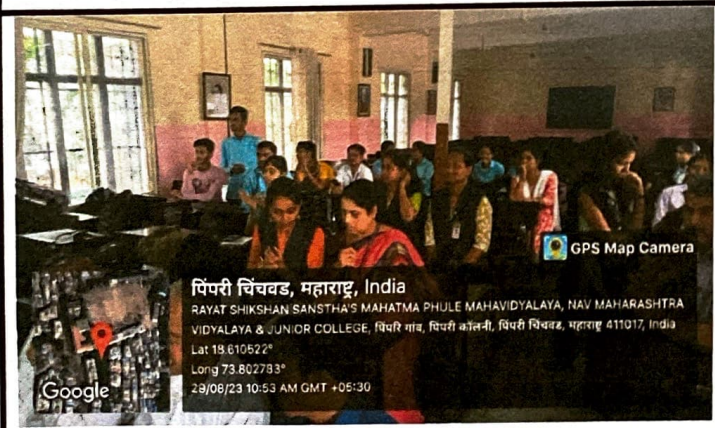


पिंपरी चिंचवड, महाराष्ट्र, India
 RAYAT SHIKSHAN SANSTHA'S MAHATMA PHULE MAHAVIDYALAYA, NAV MAHARASHTRA
 VIDYALAYA & JUNIOR COLLEGE, पिंपरी गांव, पिंपरी कॉलनी, पिंपरी चिंचवड, महाराष्ट्र 411017, India
 Lat 18.610496°
 Long 73.802743°
 29/08/23 11:15 AM GMT +05:30

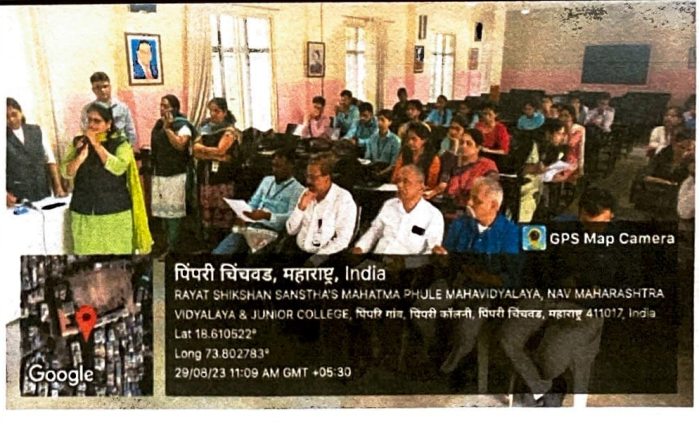


पिंपरी चिंचवड, महाराष्ट्र, India
 RAYAT SHIKSHAN SANSTHA'S MAHATMA PHULE MAHAVIDYALAYA, NAV MAHARASHTRA
 VIDYALAYA & JUNIOR COLLEGE, पिंपरी गांव, पिंपरी कॉलनी, पिंपरी चिंचवड, महाराष्ट्र 411017, India
 Lat 18.610522°
 Long 73.802783°
 29/08/23 10:48 AM GMT +05:30

Students Participated in Quiz Competition



पिंपरी चिंचवड, महाराष्ट्र, India
 RAYAT SHIKSHAN SANSTHA'S MAHATMA PHULE MAHAVIDYALAYA, NAV MAHARASHTRA
 VIDYALAYA & JUNIOR COLLEGE, पिंपरी गांव, पिंपरी कॉलनी, पिंपरी चिंचवड, महाराष्ट्र 411017, India
 Lat 18.610522°
 Long 73.802783°
 29/08/23 10:53 AM GMT +05:30



पिंपरी चिंचवड, महाराष्ट्र, India
 RAYAT SHIKSHAN SANSTHA'S MAHATMA PHULE MAHAVIDYALAYA, NAV MAHARASHTRA
 VIDYALAYA & JUNIOR COLLEGE, पिंपरी गांव, पिंपरी कॉलनी, पिंपरी चिंचवड, महाराष्ट्र 411017, India
 Lat 18.610522°
 Long 73.802783°
 29/08/23 11:09 AM GMT +05:30

Prof. Dr. Kamayani Surve and Ms. Suvarna Gaikwad as jury

Dr. P. A. Bharad as a anchor


 Chairman

Innovation and Incubation Cell




 Principal

PRINCIPAL
 MAHATMA PHULE MAHAVIDYALAYA
 PIMPRI, PUNE-411 017.

Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

M.Sc. I Short term course (2023-24)

A Certificate Course in Career Prospects in Intellectual Property Rights

List of Enrolled students

M. Sc. I (Chemistry / Microbiology/ Geography)

| Sr.No. | Name of the student: | M/F | Category | Mobile No. | email id |
|--------|-------------------------------------|-----|--------------|------------|-------------------------------|
| 1. | Chavan Sakshi Deepak | F | OPEN | 9130186140 | sakshichavan200008@gmail.com |
| 2. | Vasave Soniya Aatya | F | ST | 8010882931 | ramvasave999@gmail.com |
| 3. | Rathod Amol Baliram | M | EBC | 9325125674 | ramol6464@gmail.com |
| 4. | Rajane Mayuri Ganesh | F | OPEN | 9022047292 | mayurirajane2003@gmail.com |
| 5. | Sontakke Rohini Vishwanath | F | SC | 9284780903 | rohinis1704@gmail.com |
| 6. | Bakal Krushna Shamrao | M | NT(C) | 9604986242 | bakals99@gmail.com |
| 7. | Jadhav Deepali Tanaji | F | VJ/NT(A) | 9922401610 | dmn22688@gmail.com |
| 8. | Mujawar Moin Altab | M | OBC | 7218324404 | moinmujawar08@gmail.com |
| 9. | Zambare Mahesh Vitthal | M | OPEN | 8805516636 | maheshzambare110@gmail.com |
| 10. | Mujawar Mohammadhasan Ibrahim | M | OBC | 8669465437 | mujawarhasan7786@gmail.com |
| 11. | Lavate Sudhakar Arjun | M | NT(C) | 7038698060 | sudhakarlavate263@gmail.com |
| 12. | Pute Vishal Vilas | M | NT(B) | 7796854774 | vishalputte@gmail.com |
| 13. | Deshmukh Jotiram Dhanaji | M | OPEN | 9766159300 | jotiramdeshmukh223@gmail.com |
| 14. | Yelmar Sushma Sunil | F | OPEN | 9960656867 | sushmayelmar@gmail.com |
| 15. | Gaikwad Karan Uttam | M | OPEN | 8600258274 | karangaikwad267@gmail.com |
| 16. | Navale Nagesh Balasaheb | M | OBC | 9503272516 | navalenagesh72@gmail.com |
| 17. | Kale Sanika Navnath | F | OPEN | 9322920414 | sanikakale8899@gmail.com |
| 18. | Jadhav Mayuri Manikrao | F | OPEN | 7249220098 | mayurimjadhav26@gmail.com |
| 19. | Patil Shruti Popat | F | OBC | 8625942055 | sp6923091@gmail.com |
| 20. | Awachar Supriya Ajabrao | F | OBC | 9518792175 | supriyaawachar1@gmail.com |
| 21. | Chalake Vaishnavi Tanaji | F | OPEN | 9860015952 | vaishnavi.chalake03@gmail.com |

| | | | | | |
|-----|-------------------------------|---|-------|------------|-----------------------------|
| 22. | Ghuge Swati Rameshwar | F | NT(D) | 9022177451 | ghugesawti27@gmail.com |
| 23. | Koli Seeta | F | SC | 7743889671 | seeta.koli2001@gmail.com |
| 24. | Devkate Dnyaneshwari Popat | F | NT(C) | 7972027158 | nehadevkate5@gmail.com |
| 25. | Bhoir Prashant Ramchandra | M | ST | 9834660099 | prashantbhoir831@gmail.com |
| 27. | Joshi Komal Soma | F | ST | 7498951479 | komaljoshi1904@gmail.com |
| 27. | Bhalchim Priti Vishwas | F | ST | 7058628605 | pribhalchim27@gmail.com |
| 28. | Janrao Harshada Vijay | F | SC | 7218718708 | harshadajanrao802@gmail.com |
| 29. | Supe Laxman Kisan | M | ST | 9881434842 | laxmansupe@gmail.com |

Faculty & Coordinator

Miss Baba R.R.

HEAD

Dept. of Chemistry
Mahatma Phule Mahavidyalaya,
Pimpri, Pune-411 017.

Chief Coordinator.



PRINCIPAL
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.



Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

Students' Multi-skill Expo: Project Report (2023-24)

Name of the Course: A Certificate course in Career Prospects in Intellectual Property Rights

- **Coordinator :** Miss Reema R Batra
- **Faculty:** Miss Reema R Batra
- **Project Title: Intellectual Property Rights**
- **Students Participated:**

| Sr.No. | Full Name of the Student | Class |
|--------|--------------------------|--------|
| 1. | Dhaneshwari Neware | M.Sc.I |
| 2. | Payal Panware | M.Sc.I |
| 3. | Swapnil Bikkad | M.Sc.I |

- **Objectives of the Project:**

1. To make students aware about the IPR and exercise it to bring into the notice of the visitors
2. Students must be able to convey the importance of IPR to everyone visiting the expo


- **Outcome of the Project:**

1. Students successfully conveyed the importance of IPR
2. They also demonstrated how to check the original products with help of logo, registered trademark, etc




M.Sc.I students at multi skill expo 30/10/2023


Coordinator


HEAD
HOD
Dept. of Chemistry
Mahatma Phule Mahavidyalaya,
Pimpri, Pune-411 017.


Chief Coordinator




Principal
PRINCIPAL
MAHATMA PHULE MAHAVIDYALAYA
PIMPRI, PUNE-411 017.

Savitribai Phule Pune University

(Formerly University of Pune)

AVISHKAR-2023

Organized by

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

His Excellency, the then Chancellor of University and Governor of Maharashtra, Shri S.M.Krishna initiated a novel research project competition for students named AVISHKAR in the year 2006 with the view to inculcate research culture among students. This activity is unique in its nature and has generated a lot of enthusiasm among students.

AIMS AND OBJECTIVES:

1. To inculcate research culture among students.
2. To encourage original and novel thinking
3. To provide an opportunity for expression of academic talent.
4. To promote interaction among academia, R & D institutes and Industries.

DISCIPLINES (THEME OF GROUP)

Projects can be in the form of live demonstration/models/posters and should be based on innovative ideas:

- | | |
|--|-------------------------------------|
| 1. Humanities, Languages, Fine Arts etc. | 2. Commerce, Management & Law |
| 3. Pure Sciences | 4. Agriculture and Animal Husbandry |
| 5. Engineering and Technology | 6. Medicine & Pharmacy |

LEVELS OF PARTICIPATION

- | | |
|---------------------------------|-----------------------------|
| 1. Undergraduate Level (UG) | 2. Post Graduate Level (PG) |
| 3. Post PG Level (M.Phil/Ph.D.) | 4. Teacher's Level |

ELIGIBILITY CRITERIA

UG: Students who have enrolled for the degree/diploma in the participating university or its constituent/ affiliated colleges of recognized institutes who are below the age of 25 years.

PG: Students who have enrolled for the M.Phil. / Ph.D./ D. Sc./D.Lit. in the participating university or its constituent/affiliated colleges or recognized institutes.

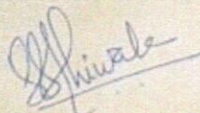
BENEFITS

1. Students will receive 1 non CGPA credit.
2. State level winner will get Rs. 5000/- cash (First Prize) and 3000/- (Second Prize).

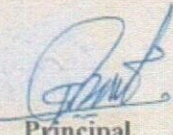
CONTACT

All eligible candidates should enroll their names, level of participation and project title in prescribed format on or before 19th Sept., 2023 on following Email ID: mpcp.research22@gmail.com

SCHEDULE FOR COMPETITION : College Level : 23rd Sept., 2023, University Level : 1st week of Nov., 2023, State level : 1st week of Jan., 2024


Dr. Sangeeta Ahiwale
ARC



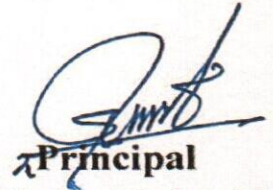

Principal,
Mahatma Phule Mahavidyalaya,
Pimpri, Pune-17

Rayat Shikshan Sanstha's
MAHATMA PHULE MAHAVIDYALAYA, PIMPRI, PUNE-17
AVISHKAR RESEARCH PROJECT COMPETITION-2023-24
(COLLEGE LEVEL)

Avishkar 2023 (college level) research project competition was successfully organized in the college on Saturday, 23rd Sept. 2023 under three categories (Pure Sciences, Agriculture and Animal Husbandry, Engineering & Technology). A total of 25 research projects were presented through the poster and models. Approximately 60 students participated. The competition was inaugurated by the hands of hon'ble principal Prof. Dr. Madhav Sarode and academic research Co-ordinator, Prof. Dr. Sangeeta Ahiwale and team organized the level successfully. Vice-Principal. Mr. Shahaji More and all Science faculty members graced the occasion.



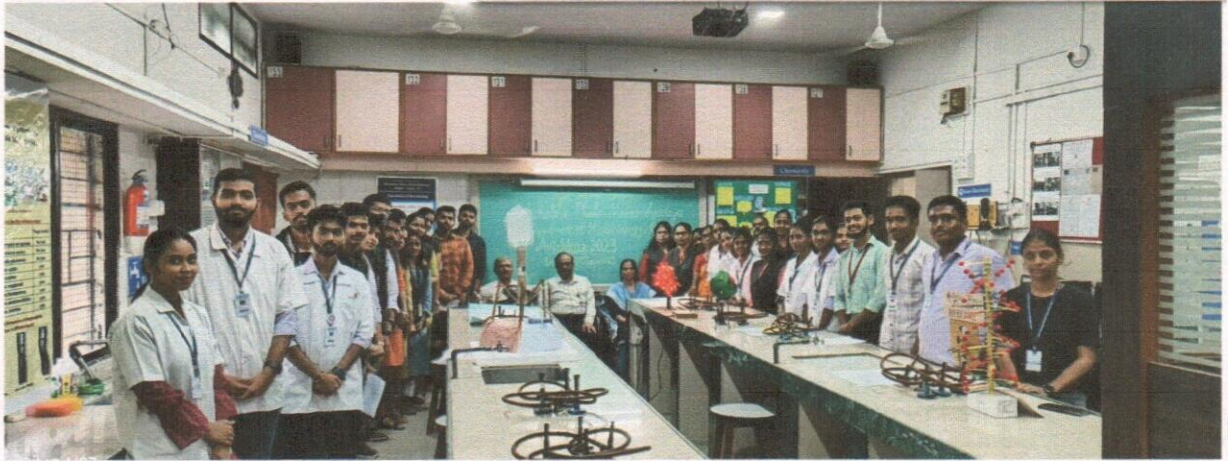
Academic research Co-ordinator



Principal
Mahatma Phule Mahavidyalaya,
Pimpri, Pune-17

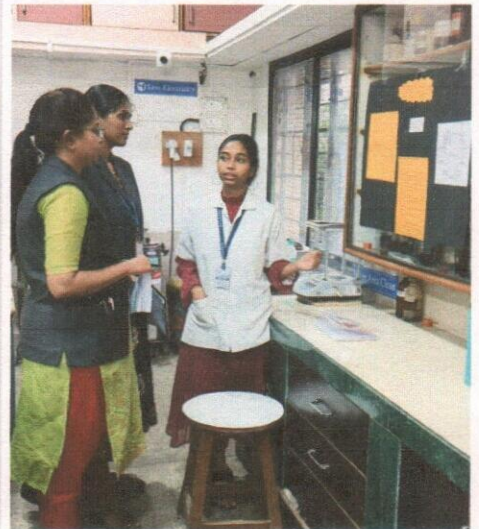


GPS Map Cam
Pimpri-Chinchwad, Maharashtra, India
JR62+4WW, Nav Maharashtra Vidyalay Rd, Pimpri Gaon, Pimpri Colony,
Pimpri-Chinchwad, Maharashtra 411017, India
Lat 18.610349°
Long 73.802328°
23/09/23 04:13 PM GMT +05:30



GPS
Pimpri Chinchwad, Maharashtra, India
309/37, Shramik Nagar, Pimpri Colony, Pimpri Chinchwad, Pimpri,
Maharashtra 411017, India
Lat 18.61056°
Long 73.80228°
23/09/23 04:46 PM GMT +05:30

Avishkar Research Competition 2023 at Mahatma Phule College, Pimpri, Pune on 23th September 2023





**Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17**

Avishkar Competition 2023 (College Level)

Department of Chemistry

Poster Evaluation

Category: Pure Science

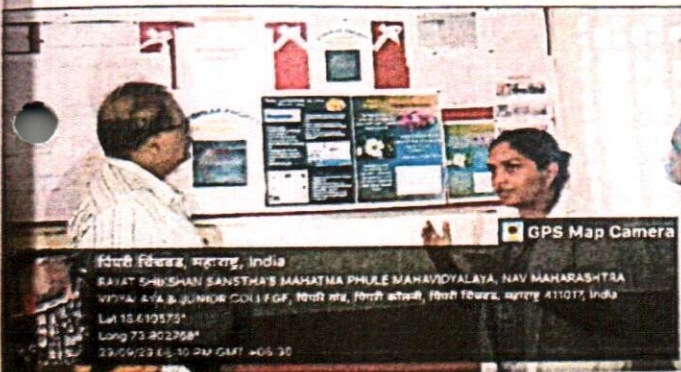
Date: 23/09/2023



**Mr. Shahaji More felicitating
Prin. Prof. Dr. Madhav Sarode**



**Mr. Shahaji More felicitating Prof. Sangeeta
Ahiwale**



Students Presenting Posters in Avishkar Competition (College Level)



[Signature]
HEAD

**Dept. of Chemistry
Mahatma Phule Mahavidyalaya,
Pimpri, Pune-411 017.**



Savitribai Phule Pune University

(Formerly Pune University)

Avishkar 2023 (College Level)

Organized by

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

Department of Microbiology

Attendance

Date: 23/09/2023 Time: 03:00 PM to 04:00 PM

| Sr. No. | Name of the Student | Title of the Project | Signature |
|----------|--|---|--|
| 1) PS | Ashwini Chimne Patil Sakshi Bidkar Dhanashree | Influenza virus | Ashwani Patil Dhanu |
| 2) PS | Autade Pranita zine shubhrata Kalaskar Shruti | COVID 19 model | Pranita Shruti |
| PS 3) | Pawar Vivek Ohulkar Omkar | Antonie van Leeuwenhoek microscope | Vivek Omkar |
| PS 4) | Supriya Awchar seeta koli, shruti patil, vishnavi chulke sanika kale | Watson & Crick's DNA model. | Awchar S.koli Patil Chulke Kale |
| PS 5) | Datta Mane Poonam Kothkar Amol Gurav Ganesh Walke | Bacteriophage Host Model. | Mane Kothkar Gurav Walke |
| | Jandeep Jagdale Anulsha Bobade Tejasweeni Tone Ameenu walke | | Jandeep Anulsha Tejasweeni Ameenu |
| PS 6) | Pranita S. Autade Shubhrata R. Zine | Microbial Pigments for better tomorrow | Pranita Zine |
| PS 7) | Prasad B. Shirde Shruti D. Kalaskar Kunjal G. Zinjade | Isolation of phage | Prasad Shruti Zinjade |

Shiwale
(ARC)



Savitribai Phule Pune University
(Formerly Pune University)

Avishkar 2023 (College Level)

Organized by

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

Department of Microbiology

Attendance

Date: 23/09/2023 Time: 03:00 PM to 04:00 PM

| Sr. No. | Name of the Student | Title of the Project | Signature |
|-----------|--|---|------------------------------------|
| 8 | Tone Tejuswini Devukute Rutuja Mune Duttaroy | Nanotechnology in Biology | Tone Tejuswini Devukute Mune |
| 01 A/C | Pratik Rahul Waghmare | Nitro grow - Cultivating Nitrogen - Rich Vermicompost for chemical free farming | Waghmare |
| 01 E&T | Shubham Kumbhar Vijay Lad | Helmet operating bike | Shubham Vijay |
| 02 E&T | Vijay Lad Shubham Kumbhar | absorbing Road | Vijay Shubham |
| 15 | Omkar Jadhav Sahil Tate | To Study fertility of natural clay (Shadomati) with comparison to other soil | Omkar Sahil |
| 17 | Raj Joshi Aditya Ghodke | Sampling Methods | Raj Joshi Aditya |
| 16 | Mune Duttaroy Amanu Walikar | Antimicrobial Resistance | Mune |
| | | | |

Shivale
(ARC)



Savitribai Phule Pune University
(Formerly Pune University)

Avishkar 2023 (College Level)

Organized by

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

Department of Microbiology

Attendance

Date: 23/09/2023 Time: 03:00 PM to 04:00 PM

| Sr. No. | Name of the Student | Title of the Project | Signature |
|---------|--|---|-----------|
| 10. | Shamli S. Chavan Vaishnavi Mothekar | Breast cancer Awareness | |
| 14. | Sandhya Shinde Anjali Gupta | Paramecium Culture In Water | |
| 11. | Chhaya Balaji Holgi Sayali Shantaram Kumbhar | Green Tower in concrete Forest | |
| 12. | Sejal. Vijay Suryawanshi Vishakha Ashok Kamble | Ecosystem | |
| 13) | Sankeshwar Nilesh | Propagation of Bacteriophage using egg culture technique | |
| 17. | Raj Joshi Aditya Ghobke | Sampling Methods | |
| 18) | Tejas Dhaije | Architectural model of multi-floored aquaponics agriculture | |
| | | | |

(ARC)



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Avishkar 2023 (College Level)
Organized by
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17
Department of Microbiology
Attendance
Date: 23/09/2023 Time: 03:00 PM to 04:00 PM

| Sr. No. | Name of the Student | Title of the Project | Signature |
|----------|--|---|--|
| 1) PS | Ashwini Chimne Patil Sakshi K Bidkar Dhanashree | Influenza Viruses : | Chimne Patil Dhanu |
| 2) PS | Autade Pranita Zine Shubhrata Kalaskar Shruti | Covid 19 | Pranita Zine Shruti |
| 3) PS | Pawar Vivek Ohulkar Omkar | Antonie van Leeuwenhoek microscope | Vivek Omkar |
| 4) PS | Supriya Awachar Seeta Koli Shruti Patil Vaishnavi Petti Chakre Sanika Kale | Watson & Crick's DNA model | Supriya Seeta Shruti Vaishnavi Sanika |
| 5) PS | Datta Mane Poondam Kulkar Amol Gurav Ganesh Wankar | Bacteriophage Host Model. | Datta Poondam Amol Ganesh |
| 6) PS | Jaydeep Jagdole Anuksha Bobade Tejaswini Tone Ameena Wankar | Host Model. | Jaydeep Anuksha Tejaswini Ameena |
| 7) PS | Pranita S. Autade Shubhrata R. Zine | Microbial Pigments for better tomorrow | Pranita Shubhrata |
| 8) PS | Prasad B. Shirde Shruti D. Kalaskar Kunal G. Zinjale | Isolation of phage | Prasad Shruti Kunal |

8)

~~Prasad~~
(ARC)



Savitribai Phule Pune University

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Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

Department of Microbiology

Attendance

Date: 23/09/2023 Time: 03:00 PM to 04:00 PM

| Sr. No. | Name of the Student | Title of the Project | Signature |
|-----------|---|--|------------------------------------|
| 8 | Tone Tejwini Devkule Rutuja Mune Datturay | Morphology in biology | Tone Devkule Mune |
| 01 AG | Pratik Rahul Waghmare | Nitrogrow:- Cultivating Nitrogen rich vermicompost for chemical-free farming | Waghmare |
| 01 E&T | Shubham Shankar Kumbhar Vijay Lad | Helmet Operating Bike | Shubham Vijay |
| 02 E&T | Vijay Dal Shubham Kumbhar | Absorbing Road | Vijay Shubham |
| 15 | Omkar Jadhav Sahil K. Tate | To study fertility of natural soil [Shado mati] with comparing other soil | Sahil Jadhav |
| 17 | Raj Joshi Aditya Ghodke | Sampling Methods | Raj Joshi Aditya... |
| 18) | Tejas Dhaise | Architectural rigde of multi-floored aqua ponics agriculture | Dhaise |
| 16 | Mune Datturay Shamsundar Wulikar Amey | Antimicrobial resistance. | Mune |

(ARC)



Savitribai Phule Pune University
(Formerly Pune University)

Avishkar 2023 (College Level)

Organized by

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

Department of Microbiology

Attendance

Date: 23/09/2023 Time: 03:00 PM to 04:00 PM

| Sr. No. | Name of the Student | Title of the Project | Signature |
|---------|---|--|-----------|
| 10 | Shamli chavan | Breast Cancer Awareness | |
| 11 | Sayali Shantaram Kumbhar Chhaya B. Holgi | Green Towers in a Concrete Forest | |
| 14 | Shinde Sandhya Anjali Gupta | Paramecium Culture in water | |
| 15 | Sejal Vijay Suryawanshi Vishakh Ashok Kamble | Ecosystem | |
| 13 | Nilush Sankebhare | Propagation of Bacteriophage using egg culture technique | |
| | | | |
| | | | |
| | | | |
| | | | |

(ARC)



Combating threats of bioterrorism via application of potent, lytic bacteriophages against *B.anthraxis* .

Mahatma Phule Mahavidyalaya, Pimpri, Pune (411017).

1. Shinde Prasad Balasaheb* prasadbshinde01@gmail.com (7721000068).
2. Zinjade Kunal Gopinath* zinjadekunal1@gmail.com (9422064051).
3. Kalaskar Shruti Dada* shrutikalaskar51@gmail.com (9503709519).

Abstract

Several studies have confirmed that a huge variety of micro-organism especially bacteria present in air are potent human pathogen.

Reports have suggested that the immuno-compromised people are highly susceptible to these pathogens. The bacterial species viz. *S.aureus* , *S.epidermidis*. Reportedly have been found dominant in air flora contributing to infection. Extensive use of different anti-microbial against these pathogen have led to an increase in the resistance among these pathogens . However, the application of bacteriophage is the effective way of killing of bacterial pathogenis.This may help in combating the concern of anti-microbial resistance. Bacteriophage is a virus that infect bacteria and can be easily cultivated in labs. In order to destroy the bacterial pathogens via bacteriophage application an aerosol suspension can be formulated using isolation and fusion methods. Thus aerosolic suspension will help to kill the air-borne pathogens to greater extent in schools, colleges, research laboratories, thereby decreasing the life wrecking hazard imposed by the bacterial pathogens in healthy and immune-compromised individuals.

Keyword: - air flora, aerosol, anti-microbial resistance, and bacteriophage.



Microbial Pigment for a Better Tomorrow

Pranita Autade*, Shubrata Zine

Department of Microbiology, Mahatma Phule Mahavidyalaya, Pimpri, Pune

* pranitaautade51@gmail.com Mob. 9623500214

Microbial pigments are light-absorbing compounds used in the food, textile, and cosmetics industries. They are Antioxidant, Antimicrobial, Anticancer, Immunoregulation, Anti-inflammatory, Antiproliferative, Immunosuppressive. *Micrococcus roseus* produces carotenoid pigments which have a red colour. While *Serratia marcescens* produces prodigiosin also with red colour.

Both pigments were extracted and applied on a piece of cotton cloth. The colour was retained even after detergent treatment. Hence, can be used as textile dye. These pigments also possess antimicrobial property which can be useful in avoiding skin infections.

Prodigiosin, at acidic pH is orange coloured and at basic pH is dark red to pink. Hence, Prodigiosin is effective in detection of pH at variety of scenarios like pH of wastewater, pH indicator strips.



**Avishkar 2023
(College Level)**

Level: UG

Category: Pure Science

Chaya Holgir, Sayali Kumbhar

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17.

Email Id- rholgir55@gmail.com

Guide name- Ms. Swapana Hajare

Green Tower in a concrete forest

Abstract

Green tower is a concept in which vegetables or plants are grown in a vertical layers. The present work is focused on the use of eco-friendly material and the space saving method for the development of green corner in buildings, apartments, educational institutes, hospitals & gardens also. This tower can be useful to grow flowering plants, even leafy vegetables & some fruit crops also. The aim of this project idea is to promote gardening in limited space that will helpful to enhance oxygen level in compact concrete buildings & also add aesthetic value to that place. The practice of development of green tower in concrete forest will help to minimize the imbalanced environment.

Keywords: green tower, ecofriendly material, limited space


HEAD

Department of Botany
Mahatma Phule Mahavidyalaya
Pimpri, Pune - 411 017.

LEVEL: UG
CATEGORY: BSC/SCIENCE

GREEN TOWER IN A CONCRETE FOREST

Abstract

Green tower is a concept in which vegetables or plants are grown in a vertical layers. The present work is focused on the use of eco-friendly material and the space saving method for the development of green corner in buildings, apartments, educational institutes, hospitals & gardens. This tower can be useful to grow flowering plants, even vegetables & some fruit crops also. The aim of this project is to promote gardening in limited space that will help to enhance oxygen level & also add aesthetic value. The practice of development of green tower in concrete forest will help to minimize the imbalanced environment.

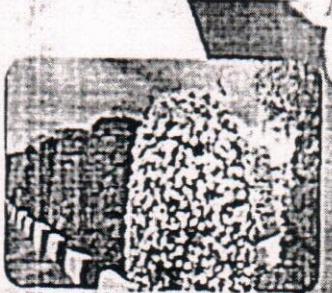
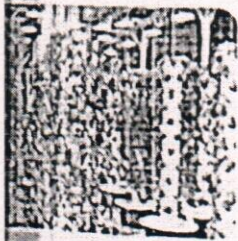
Materials & Methods:

Material

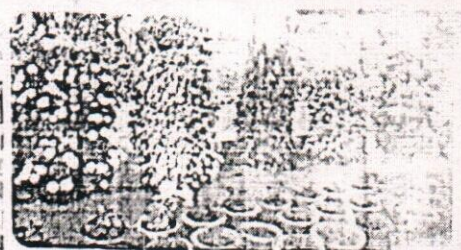
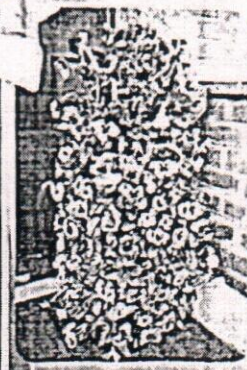
- ❖ Garden soil
- ❖ Bio fertilizers
- ❖ Metal wire
- ❖ Plant saplings or seeds
- ❖ Earthen / terracotta pot/Trays
- ❖ Pipes
- ❖ Coconut coir

Methods

- ❖ Suitable plant material is selected and grow in seed tray for seedling growth for two weeks. 2 feet X 8 inch metal wire framework is prepared and covered inside with the help of gunny cloth and small holes are created for planting the seedling material. Central part of framework is provided with rubber pipe for irrigation of soil.



Flower tower



Flower tower

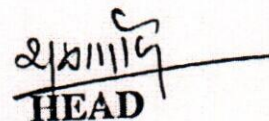


Extraction of Lead from Water by using Banana Peel

Rajeshwari Dasari, Vaishnavi Gore, Dr. P. A. Bharad*
Department of Chemistry, Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

We find heavy metals in water which are threat to ecosystem. The project is based on using natural ingredient dried banana peel. The procedure involves sun drying of banana peels followed by powdering it and adding to water containing heavy metal lead and filtering it followed by chemical test for lead content using potassium iodide. Potassium iodide on reaction with lead gives yellow colored solution due to PbI_2 . Water treated with dried banana peel powder does not give yellow color with potassium iodide which indicates absence of lead. Thus dried banana peel powder has adsorbed all the lead in water.

Key words: Banana peel, heavy metal, leads iodide.


HEAD

Dept. of Chemistry
Mahatma Phule Mahavidyalaya,
Pimpri, Pune-411 017.



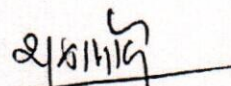
Insecticide from Waste Chrysanthemum flowers

Prajwal Gaikwad, Shravani Govekar, Dr. P. A. Bharad*

Department of Chemistry, Mahatma Phule Mahavidyalaya, Pimpri, Pune-17

Chrysanthemum flowers known as Shevanti are used in worship. After worship they are thrown into the waste. Petals of Chrysanthemum have chemical Pyrethrin a natural insect repellent. Pyrethrin are easily available in market as Pyrenoid spray prepared by certain chemical reactions. However we have used new procedure that involves boiling of petals in water followed by natural cooling, filtering and adding detergent. This insecticide can be prepared at household level as well. It is completely harmless.

Key Words: Pyrethrin, Insect repellent


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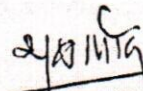
Disintegration of PoP with Household items

Vivek Pawar, Dr. D. G. Hingane*

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The Ganesh festival is celebrated across maharashtra. The ganesh idol is generally n made of plaster of paris (PoP). After immersion the POP idols does not dissolve in water. For this we have developed new and a simple method in which the PoP dissolves in 12 hours. In this method, PoP is immersed in water and followed by addition of sodium bicarbonate (baking soda), Sugar and Citric acid (Lemon). With this home made things PoP can be dissolved in just 12 hrs which will be very beneficial for environment.

Key words: PoP, disintegration, household items



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Title: Architectural Model of Multi-Floored Aquaponics
Agriculture

Abstract:

This science project revolves around the creation of a multi-floored building model designed specifically for the implementation of aquaponics agriculture. The project's primary objective is to construct a functional and visually appealing architectural model that embodies the principles of aquaponics within a multi-level structure. Through meticulous planning, engineering, and construction, this endeavor explores the potential of vertical aquaponics farming systems to maximize space utilization and food production in urban environments. The model showcases the integration of aquaculture and hydroponics at different levels, demonstrating how nutrient-rich water from fish tanks nourishes a variety of plants grown in vertical tiers. By combining theoretical research with hands-on model building, this project seeks to exemplify the efficiency, sustainability, and scalability of multi-floored aquaponics setups. It aspires to inspire sustainable farming practices, especially in urban areas where space constraints are a significant concern, and promote the

concept of locally sourced, fresh produce to meet the growing demands of our modern world.



Keywords:

- Create a multi-floored building model for aquaponics agriculture.
- Integrate aquaculture and hydroponics within the architectural design.
- Emphasize sustainability through waste product utilization.
- Explore vertical aquaponics farming for space efficiency.
- Combine theoretical research with practical model construction.
- Highlight efficiency and scalability for increased food production.
- Address urban agriculture and space constraints.
- Promote sustainable farming practices, especially in urban areas.
- Advocate for locally sourced, fresh produce to enhance food security.



Vijay Ram lad

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Avishkar

Title of Idea: Abroad (absorbing road).

Name of Student: Vijay Ram Lad

Class: TY BSc Physics

Abstract:

Water Absorbing pavement is a technique in Pavement construction. This technique we can find a solution for the low ground water level, effective management of rain water runoff, Agricultural problems, etc. Porous concrete can be introduced in low traffic volume areas, walk ways, sub base for concrete pavements, inter locking material etc. Porous concrete material have the ability to allow water to flow through itself to recharge ground water level and minimize surface rain water runoff. This property of porous concrete reviews its applications and engineering properties, including environmental benefits, strength. By replacing a part of cement with conplast SP430, then it results the more strength to the concrete. Hence it take acts as an eco-friendly paving material. Porous concrete is a special type of concrete, which consists of cement, coarse aggregates, water and if required, mixtures and other cement materials. As there are no fine aggregates used in the concrete matrix, the void content is more which allows the rain water to flow through its body. So the porous concrete is also called as Permeable concrete and Previous concrete

Objectives:

1. To study of porous pavement.
2. Planning and designing of porous pavement.



3. Environmental consideration of porous Asphalt.
4. Development of permeable pavement.
5. Natural aggregate was replaced with discarded concrete and clay brick aggregates.
6. Addition of recycled clay brick aggregates increases the crushing index.
7. Increase of crushing index exerts a negative impact on mechanical properties.
8. The effects of crushing index on the porosity and permeability can be ignored.



Title :

NitroGrow: Cultivating Nitrogen-Rich Vermicompost for Chemical-Free Farming.

Abstract :

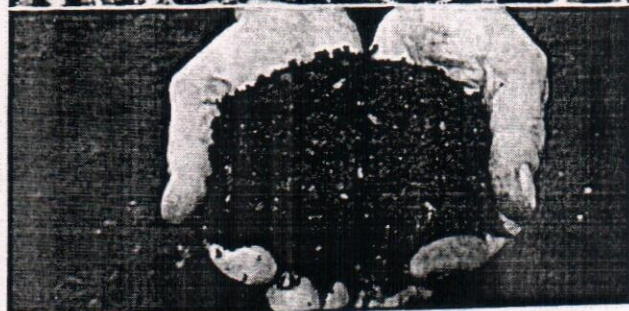
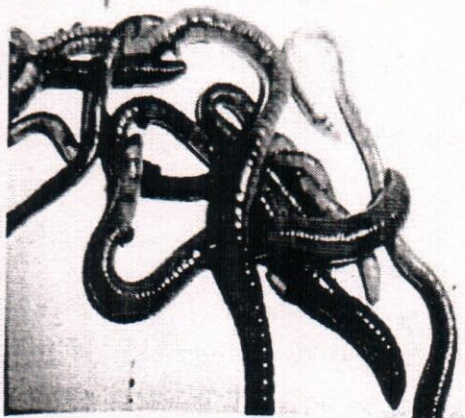
In the pursuit of sustainable agriculture, "NitroGrow" introduces a groundbreaking approach to farming with a focus on nitrogen enrichment and chemical-free practices. Our mission is to replace chemical fertilizers with nitrogen-rich vermicompost. Red wigglers (*Eisenia fetida*) play a central role, feasting on nitrogen-rich organics like leguminous plant residues and composted manure. Through their natural alchemy, organic matter transforms into dark, nutrient-packed vermicompost.

As our project unfolds, we are committed to scaling up this eco-friendly process. Currently in progress, "NitroGrow" aspires to offer a sustainable alternative to chemical fertilizers, benefitting farmers, fostering a greener agricultural future, and contributing to the reduction of chemical fertilizer dependence.

Key Points:

- Sustainable agriculture focus.
- Replacing chemical fertilizers with nitrogen-rich vermicompost
- Role of red wiggler earthworms (*Eisenia fetida*).
- Natural transformation of organic matter into nutrient-packed vermicompost.
- Ongoing commitment to scaling up the eco-friendly process.
- Aspiration to offer sustainable alternatives to chemical fertilizers.

- Benefit to farmers and greener agricultural practices.
- Reduction of chemical fertilizer dependence.
- The potential for a nitrogen-enhanced vermicompost to enrich soil and crops naturally.



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Propagation of Bacteriophage to Mitigate the Rise of AMR in Post Antibiotic Era Using Egg as an Cultivating Ecosystem

Mahatma Phule Mahavidyalaya, Pimpri, Pune(411017)

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ABSTRACT

Several Research have concluded that various Bacteria have been developing Antimicrobial Resistant Characters. About 1,27,0000 people died Around World wide due to Infection of AMR Pathogens. There is an urgent need for a potential bio weapon against AMR superbugs. Although many cultivating ideas been adopted .one of the technique exploited is egg culture. Egg serves as a natural source Nutrient Medium which contains Nutrient such Proteins and Lipid. Egg contains all Necessary Nutrients for growth and multiplication of Bacteria. Bacteriophages can br propagation use specific host bacterium cultivated in an egg culture. Classically in former days eggs were used for propagation of various animal viruses such as herpes simplex virus, influenza virus, mumps virus etc. In our time we will initiate the culture for propagation of bacterial viruses. Cultivated in various parts of egg', Chorioallantoic Membrane *Herpes simplex Virus* Amniotic Membrane *Influenza virus Mumps Virus* Allantoic Membrane *Herpes Simplex Virus*, Yolk Sac *Influenza virus, Mumps Virus Avain Adenovirus*.

Keywords:- AMR, Egg culture technique, Bacteriophage propagation.



Propagation of Bacteriophage to Mitigate the Rise of AMR in Post Antibiotic Era Using Egg as an Cultivating Ecosystem

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Rayat Shikshan Sanstha's
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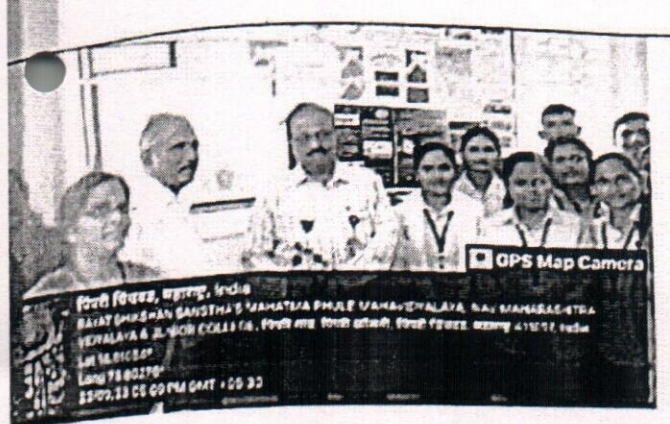
Avishkar Competition 2023 (College Level)

Department of Chemistry

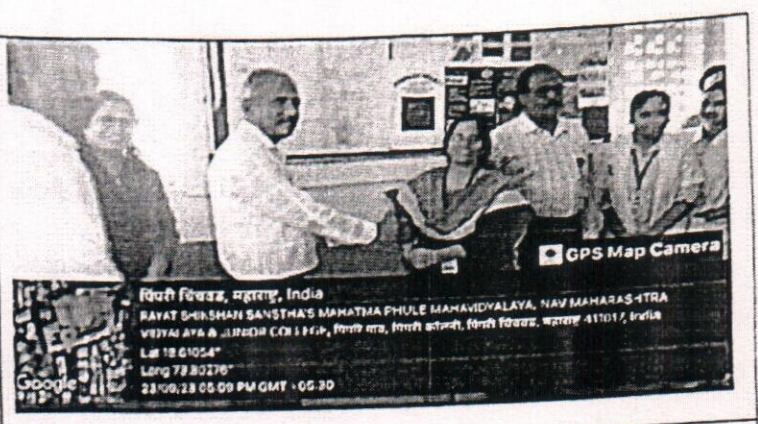
Poster Evaluation

Category: Pure Science

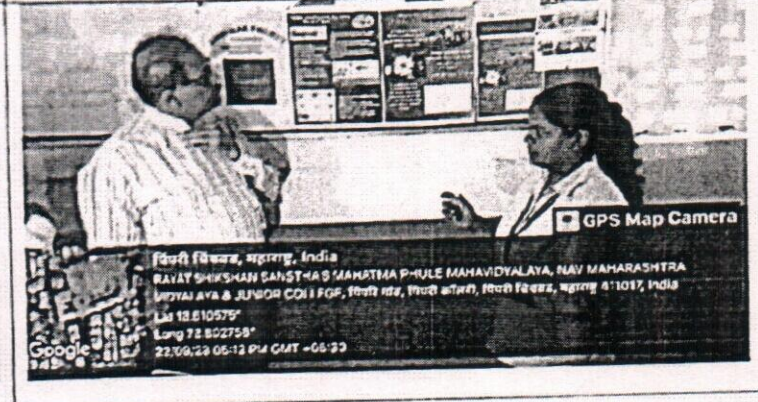
Date: 23/09/2023



Shahaji More felicitating
Prin. Prof. Dr. Madhav Sarode



Mr. Shahaji More felicitating Prof. Sangeeta
Ahiwale



Students Presenting Posters in Avishkar Competition (College Level)

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Avishkar

Title of Idea: Helmet Operating Bike

Name of Student: Vijay Ram Lad /Shubham Kumbhar

Class: TY BSc Physics

Abstract:

A smart helmet is a type of protective headgear used by the rider which makes bike driving safer than before. The main purpose of this helmet is to provide safety for the rider. This can be implemented by using advanced features like alcohol detection, accident identification, location tracking, use as a hands free device, fall detection. This makes it not only a smart helmet but also a feature of a smart bike. It is compulsory to wear the helmet, without which the ignition switch cannot turn ON. An RF Module can be used as wireless link for communication between transmitter and receiver. If the rider is drunk the ignition gets automatically locked, and sends a message to the registered number with his current location. In case of an accident it will send a message through GSM along with location with the help of GPS module. The distinctive utility of project is fall detection; if the rider falls down from the bike it sends a message.