



## Dr Umesh Shelke

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**Phone:** 0231 2654658 / 9822770595

**Address:** Kolhapur , Maharashtra , India - 416003

**ORCID ID:** 0000-0003-0389-1219

**Profile URL:**

<https://vidwan.inflibnet.ac.in/profile/512177>

## AREAS OF EXPERTISE

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### Organic Chemistry

Area of Research : Organic Synthesis , Heterocyclic chemistry, Adsorption studies, Material science, Environmental science and Biological studies of heterocyclic compounds.

## EDUCATION

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**Ph.D.** 2024

*Sant Gadge Baba Amravati University*

**CSIR NET JRF** 2009

*New Delhi*

**GATE** 2008

*Bangalore Institute of Technology*

**UGC CSIR NET** 2008

*New Delhi*

**MSc** 2007

*Sant Gadge Baba Amravati University*

**BSc** 2005

*Sant Gadge Baba Amravati University*

## PROFESSIONAL EXPERIENCE

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**Rajarshi Chhatrapati Shahu College** 2022 - Present

*Associate Professor*

Kolhapur

**Dr.Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)** 2014 - 2022

*Assistant Professor*

Sangli

**Rajarshi Chhatrapati Shahu College** 2010 - 2014

*Assistant Professor*

Kolhapur

**SSE CO-OP SS LATE R.B.GARUD KALA & WANIYA MAHAVIDYALAYA, SHENDURNI.** 2009 - 2010

*Assistant Lecturer*

Jalgaon

**CSIR-Central Salt and Marine Chemicals Research Institute** 2008 - 2009

*Junior Research Fellow*

Bhavnagar

## HONOURS AND AWARDS

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**Ph.D** 2024

Awarded by: Sant Gadge Baba Amravati University Amravati

**Junior Research Fellow** 2009

Awarded by: CSMCRI Bhavnagar Gujrat

**Junior Research Fellow (CSIR-JRF)** 2009

Awarded by: HRD UGC NEW DELHI

**UGC Junior Research Fellow (JRF)** 2008

Awarded by: HRD UGC NEW DELHI

## PROFESSIONAL MEMBERSHIPS

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**Shivaji University Kolhapur** 2025

*Recognised Research Guide in Chemistry*

**Rajarshi Chhatrapati Shahu college kolhapur** 2024

*IQAC Coordinator*

**LOCAL INQUIRY COMMITTEE** 2023

*MEMBER OF LIC COMMITTEE SHIVAJI UNIVERSITY,KOLHAPUR*

**AVISHKAR COMMITTEE 2023** 2023

TEAM LEADER for STATE LEVEL AVISHKAR CONVENTION 2022-23 SHIVAJI UNIVERSITY KOLHAPUR

**RAJARSHI CHHATRAPATI SHAHU COLLEGE KOLHAPUR CO-CORDINATOR IQAC** 2023

CO-Cordinator

**LIC** 2022

Member of LIC Committee Shivaji University Kolhapur

**NAAC MOCK PEER TEAM RAYAT SHIKSHAN SANSTHA** 2022

Member Coordinator

**RAYAT SHIKSHAN SANSTHA AAA COMMITTEE** 2021

member Co-ordinator

**INTERNAL QUALITY ASSURANCE CELL ASC COLLEGE RAMANANDNAGAR (BURLI) SANGLI (2019 to 2022)** 2019

COORDINATOR

**COLLEGE DEVELOPMENT COMMITTEE (2019-2022) ASC COLLEGE RAMANANDNAGAR (BURLI)** 2019

CDC MEMBER

**COMMITTEE MEMBERSHIPS**

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**Rajarshi Chhatrapati Shahu College, Kolhapur** 2023

IQAC Coordinator

**COLLEGE AVISHKAR COMMITTEE 2022 onward Rajarshi Chhatrapati Shahu college Kolhapur** 2022

Chairman

**EXAMINATION COMMITTEE ASC COLLEGE RAMANANDNAGAR (2015-2020)** 2015

MEMBER

**BCA COMMITTEE (2015-2022)** 2015

Chairman

**SCIENCE ASSOCIATION COMMITTEE ASC COLLEGE RAMANANDNAGAR (2015-2022)** 2015

Chairman

**NAAC CRITERION V ASC COLLEGE RAMANANDNAGAR (BURLI) 2015-2018** 2015

Chairman

# PATENTS

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## Full face cover mask

*Inventor(s): Dr. D. M. Nagrik,*

Assignee: MR. U.S. Shelke and P.S. Game GS COLLELLEGE KHAMGAO | Published: 0000-00-00

## SILVER-BIDMUTH NANOPARTICLE-EMBEDDED ANDROGRAPHOLIDE SYSTEM WITH INTEGRATED COMPUTINGTECHNOLOGY FOR PRECISION CANCER THERAPY AND ENHANCED DRUG DELIVERY

*Inventor(s): Umesh Suresh Shelke, Pravina Baburao Piste, Shakil Dilawar Shaikh ,Anisa Shakil Shaikh and Kishor Sheshrao Shelki*

Assignee: Umesh Suresh Shelke, Pravina Baburao Piste, Shakil Dilawar Shaikh ,Anisa Shakil Shaikh and Kishor Sheshrao Shelki | Published: 2024-12-13

## Method and system for mitigating air pollution and its impact on climate change

*Inventor(s): Dr Ram Ashish Shrivastava*

Assignee: Dr Preeti Gajghate 3)Dr Umesh Suresh Shelke 4)Dr Mukund Dhanaji Kadam 5)Amit Kumar Pandey 6)Shubham Kuriyal 7)Dr Shakil Dilawar Shaikh 8)Prabakaran C 9)S Muthurajan 10)Suresh Kumar M 11)Dr B. Kavitha 12)Dr Saurabh Sanjay Joshi | Published: 0000-00-00

## Smart waste MI-Drien Classification for Efficient Oragnioc and non oraganic Managements

*Inventor(s): Dr. P. B. Piste*

Assignee: Shelke U.S. Shaikh , S.D. , Shedage S. D. | Published: 0000-00-00

## Enhanced efficiency of solar panels using biodegradable nanocoating-based self-cleaning system”

*Inventor(s): Dr. Umesh Suresh Shelke*

Assignee: Mr. Amol Digambar Pinjarkar,Dr. Shakil Dilawar Shaikh,Dr. AnisaShakil Shaikh,Dr. Surekha Parshram Rode | Published: 0000-00-00

## Device for Biochar-Based Wastewater Treatment from Sludge

*Inventor(s): Dr. Shelke U.S.*

Assignee: 2. Dr. Kadam Mukund Dhanaji 3. Dr. Vikash Ramchandra Bhosale 4. Dr. Valmik Shamrao Kapse 5. Dr. Kailas Radhakishan Borude 6. Dr. Pankaj Anantrao Chalikwar | Published: 0000-00-00

# PUBLICATIONS

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1. **Comparative analysis of Heavy Metals Content in soil from karveer Tahsil using Atomicadsorption spectroscopy andits Environmental impact.**

*Ratandeep P. Kamble, Pratik R. Sardesai, Pravina B. piste and Umesh S, Shelke .*

International Journal Of Research in Academic World , Vol. Volume No:1504 Issue No:5 ISSN/ISBN No:3049-3498 (2025) , pp.

2. **Genesis of Ideas: An Undergraduate Research Anthology on Innovation**

*Umesh Shelke, Pravina Piste and shrikrushna Ubarhande,*

Genesis of Ideas: An Undergraduate Research Anthology on Innovation , Vol. (2025) , pp.

3. **Metal Mediated Polyaniline (PANI) Composite catalyst**

*Umesh Shelke*

Metal Mediated Polyaniline (PANI) Composite catalyst , Vol. (2025) , pp.

4. **INTRODUCTION OF SINA RIVER BASIN IN MAHARASHTRA (MS) INDIA**

**5. Essential Chemical Processes: From Laboratory to Industry**

*Umesh Shelke, Shakil Shikh and Vikash Bhosale*

Essential Chemical Processes: From Laboratory to Industry , Vol. (2025) , pp.

**6. Bridging Theory and Experiment: Innovative Undergraduate Projects**

*Umesh Shelke and Vikas Bhosale*

Bridging Theory and Experiment: Innovative Undergraduate Projects , Vol. (2025) , pp.

**7. Research Renaissance: Exploring the Frontiers of Chemistry**

*Umesh Shelke*

Research Renaissance: Exploring the Frontiers of Chemistry , Vol. (2025) , pp.

**8. INNOVATIONS IN POLYMER-SUPPORTED CATALYSIS Polyaniline Doped Cobalt-Manganese-TiO<sub>2</sub> Systems for Green Organic Synthesis**

*Dr. Umesh Shelke*

INNOVATIONS IN POLYMER-SUPPORTED CATALYSIS Polyaniline Doped Cobalt-Manganese-TiO<sub>2</sub> Systems for Green Organic Synthesis , Vol. (2025) , pp.

**9. Water Analysis of Natural Resources**

*Kishor Shelke, Umesh Shelke and Shakil Shaikh*

Water Analysis of Natural Resources , Vol. (2024) , pp.

**10. SYNTHESIS OF (1,5-DIPHENYL)-2,4-DITHIOBIURETE**

*S.M. LUNGE, N.B. JADHAV and U.S. Shelke*

Adarsh journal of research and evolution , Vol. ISSN/ISBN No:2277-3983 (2024) , pp.

**11. MINERAL ANALYSIS OF MEDICINALLY IMPORTANT FERN: ADIANTUM PHILIPPENSE L.**

*Shakil D. Shaikh, Anish S. Shaikh, Bharat Jadhav and Umesh Shelke*

Journal of Technology , Vol. Volume No:12 Issue No:11 (2024) , pp.

**12. Natural Catalyzed Synthesis of Chalcone by Using Grindstone Chemistry under Solvent Free Conditions**

*Pravina Piste, Samarth Patil and Umesh Shelke*

African Journal of Biological Sciences , Vol. Volume No:6 Issue No:6 (2024) , pp.

**13. Evaluation of Antimicrobial Activity and Efficient Synthesis of 3, 4- Dihydropyrimidin-2-(1H)-One by Using Cobalt Chloride Doped Polyaniline Composite (PANI-Co) As Catalyst**

*Umesh S. Shelke , Shakil D. sheikh and Pravina b. Piste*

African Journal of Biological Sciences , Vol. Volume No:6 Issue No:6 (2024) , pp. ISSN/ISBN No:2663-2187

**14. Exploring Nitrogen and Oxygen Heterocycles**

*Pravina Piste, Umesh Shelke and Kishor Gaikwad*

Exploring Nitrogen and Oxygen Heterocycles , Vol. (2024) , pp.

**15. Synthesis of CoO, NiO Nanoparticles, CoO@pani and NiO@pani Nanocomposites CoNiO<sub>2</sub>, CoNiO: Doped PANI and Investigation of its Photocatalyst Activity**

*Ramdas S. Suralkar', Deepak M. Nagrik', Umesh S. Shelke' Ravi S. Balaskar\**

RESEARCH JOURNEY' International E- Research Journal , Vol. special issue 333 (2023) , pp. 153-168

**16. Synthesis of N-Mannich bases from 3, 4-dihydropyrimidin-2(1H)-ones by using nanostructured Cobalt Chloride Doped Polyaniline Composite as Catalyst (PANI-Co),**

*Umesh S. Shelke and Deepak M. Nagrik*

17. **preparing students as a beter citizen(A boon of Society) through values in Higher Education**  
*V.B. patil and U.S. Shelke*  
RESEARCH DIRECTION , Vol. Volume No:7 Issue No:1 DOI No:0 ISSN/ISBN No:2321-5488 (2019) , pp.
18. **synthesis and characterization of 2,3-Bis(4'-Hydroxyphenyl) (1,8)(1,4) Naphthadiazepine BHPD**  
*V.B. Patil and U.S. Shelke*  
AJANTA , Vol. Volume No:9 Issue No:2 DOI No:0 ISSN/ISBN No:2277-5730 (2019) , pp.
19. **Synthesis and characterization of 2,3, Bis(2'-Hydroxynaphthalen-6'Y)(1,8)(1-4) Naphthazepine BHND**  
*v.B. Patil And U.S. Shelke*  
AJANTA , Vol. Volume No:9 Issue No:2 DOI No:0 ISSN/ISBN No:2277-5730 (2019) , pp.
20. **Synthesis and Characterization of 2,3, Bis (4'-Hydroxyphenyl) 4,5,6,7,8,9Hexahydroquinoxaline HPQ**  
*V.B. Patil and U.S. Shelke*  
AJANTA , Vol. Volume No:8 Issue No:1 DOI No:0 ISSN/ISBN No:2277-5730 (2019) , pp.
21. **Synthesis of 3, 4-Dihydropyrimidin-2(1H)-ones by using Cobalt Chloride Doped Polyaniline as Catalyst**  
*Umesh S. Shelke and Deepak M. Nagrik*  
Journal of interdisciplinary cycle research , Vol. 11 (2019) , pp. 189-200
22. **Synthetic and Biological Evaluation of 3, 4- Dihydropyrimidin-2-(1H)-ones by using Cobalt Chloride Doped Polyaniline Composite (PANI-Co) as Nano Catalyst**  
*Shivsing R. Ingle, Umesh S. Shelke and Deepak M. Nagrik*  
Journal of interdisciplinary cycle research , Vol. 11 (2018) , pp. 162-172