

Youth For Nation

Caring Next Generation



SPHATIK 2021-22



**Khandesh College Education Society's
POST GRADUATE COLLEGE OF SCIENCE,
TECHNOLOGY AND RESEARCH, JALGAON**

Awarded 'B+' grade by NAAC with CGPA 2.52 in 1st cycle
Affiliated to K.B.C. North Maharashtra University, Jalgaon

Toppers – 2020-21

Organic Chemistry



**Nisha Pukharaj
Varma**
(First Rank)
Endowment Prize Winner



**Dhiren Kailash
Patil**
(Second Rank)

Mathematics



**Priyanka Sanjay
Patil**
(First Rank)



**Maya Ravindra
Mahajan**
(Second Rank)

Microbiology



**Vaishnawi Anil
Dhake**
(First Rank)
Endowment Prize Winner



**Vidya Vajinath
Kolhe**
(Second Rank)

Statistics



**Rajeshwari Vijay
Jadhav**
(First Rank)



**Dipika Rajendra
Ingale**
(Second Rank)

Outstanding Achievements by Students



Nisha Pukharaj Varma
(Organic Chemistry)
SET-SEPT 2021



Sunil Bodya Valavi
(Organic Chemistry)
NET JRF- JAN 2022

Outstanding Achievements by Teacher



Dr. Snehal A. Deshmukh
(Biotechnology)
Awarded Ph. D. - 2022

Our Source of Inspiration



Anandyatri Late Annasaheb G. D. Bendale
Founder President, KCE Society, Jalgaon

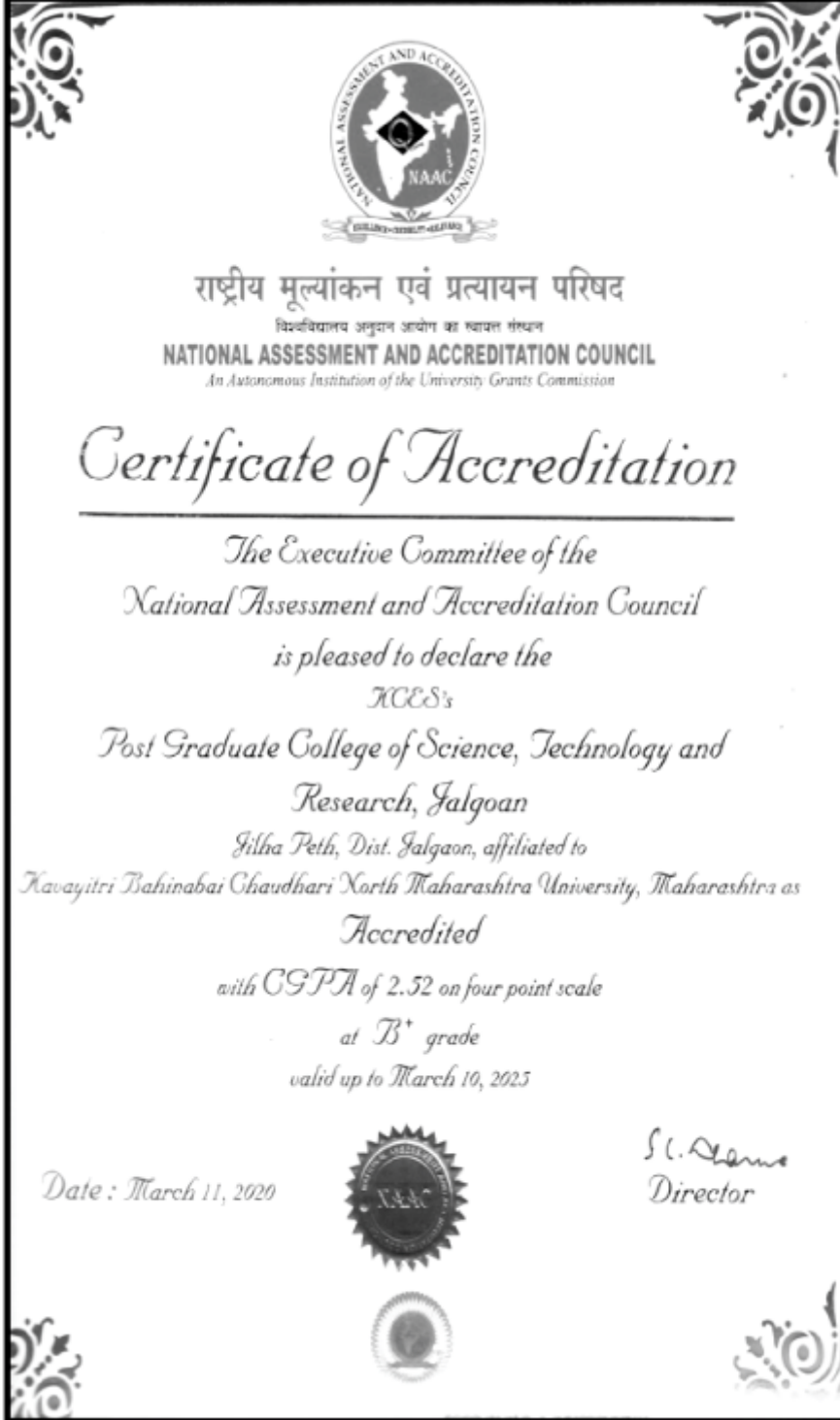
Our Driving Force Towards Excellence



Pradnyavant Shri Nandkumar G. Bendale
President, KCE Society, Jalgaon



SPHATIK 2021-22



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

*The Executive Committee of the
National Assessment and Accreditation Council*

is pleased to declare the

KCES's

*Post Graduate College of Science, Technology and
Research, Jalgaon*

Jilha Peth, Dist. Jalgaon, affiliated to

Kavayitri Bahinabai Chaudhari North Maharashtra University, Maharashtra as

Accredited

with CGPA of 2.52 on four point scale

at B grade*

valid up to March 10, 2025

Date : March 11, 2020



*S. S. Sene
Director*





Vision

To be the premier source for science and technological education, empowering the youth, especially belonging to the underprivileged sections of society, through quality education by inculcating humanitarian values and enable them to meet the challenges of the contemporary knowledge society.

Mission

- To install high standards of discipline, ethics and values amongst the future of scientist.
- To encourage students to work hard under the meticulous guidance of the eminent teachers.
- To make their dream of bright future come true by holding a lucrative job with their overall personality development and improvement in the quality of life.

Unflinching belief

- Education is the means to improve the quality of life and to achieve the development of personality
- True education is that which allows intellect to grow and affects good thoughts into character building
- Education is the means to bring about the best in many for that all round development of mankind

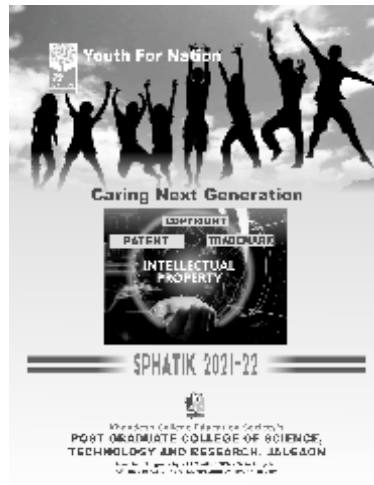


SPHATIK 2021-22



**KCE Society's
Post Graduate College of Science,
Technology and Research, Jalgaon**

Recognized by Govt. of Maharashtra vide G. R. No. NGC 2010/247/10 & Affiliated to
K. B. C. North Maharashtra University, Jalgaon
Awarded 'B+' Grade by NAAC with CGPA 2.52 in 1st cycle



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Mr. J. V. Khan

Dr. R. M. Patil

Mr. S. N. Patil

Dr. S. S. Bari

Ms. Kavita Dahake

Mr. Ulhas Patil



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Editorial

With immense pleasure and joy, we put forward our college yearly magazine “SPHATIK” of academic year 2021-22. This magazine is an amalgamation of creative and talented souls along with a blend of unique taste from each one who have contributed for this magazine.

A college magazine reflects the consolidated efforts of the teachers and the students to contribute articles to the magazine in a creative manner. These products reflect the creative expression of their inherent thought processes and their deep understanding of men and matters, our society and the nation, the educational ideals we cherish, our visionary outlook and missionary zeal, the leadership qualities, the innovative ideas for career - orientation, employability and enlightened citizenship - all rolled into making a complete, successful and happy human being !

This year the theme of the magazine is “Intellectual Property and Youth for Nation Development”. Intellectual Properties (IPs) and their respective protection through various legal statutes have become an inevitable and indispensable requirement for ensuring sustainability of the future generations for a prosperous, healthy, and safe future. Intellectual property playing a critical role for the youth of the country is through controlled utilization of biodiversity resources by linking the usage of naturally occurring plants and parts thereof with the patent protection mechanism.

Youth at even at the school and university level need to get grossly involved in research and innovation so that a robust Intellectual property culture is developed in the country in order to enable a sustainable future for all time to come. Thereafter we say that Intellectual property and youth are the pillars for the nation development.
Warm regards from our Editor,

Prof. D. R. Nhavi
Editor

From Principal's Desk

**“KNOWLEDGE IS POWER AND THE ACQUIRED KNOWLEDGE
IS THE ASSET, WHICH CANNOT BE ROBBED BY OTHERS
UNLIKE OTHER MATERIAL ASSET”**

KCE Society's Post Graduate College of Science, Technology and Research is a college with a rich and glorious past for over the last one decade. It is a college that stands out for its focus on academic excellence along with the pursuit of human values. The goal of the visionary founding father Hon'ble Mr. N. G. Bendale of the College has been to impart world class teaching at par and instill values in the students that will guide them throughout life.

The College magazine, SPHATIK is an attempt to bring in positive memories of the College activities. It features the efforts of the students showcased through creative writing, research papers presented at student seminars and webinars, Rangoli, photography skills, folk dance, poetry and prose writing, etc. It provides a glimpse into how teachers and students have adapted to academically relevant and technologically updated activities. The students need to be additionally appreciated for their enthusiastic participation in making this issue of the magazine successful through active contribution in various co-curricular and extra-curricular activities that were organized by the College, university and other academic institutions. I heartily commend their enthusiastic response and positive spirit. Our effort is to stay connected with our students and ensuring that their mental and physical wellbeing were prioritized.

I wish the best of fortune, peace and prosperity to all those who contributed in making the SPHATIK productive.

Prof. (Dr.) V. S. Zope
Principal

Annual Report (2021-22)

KCES's Post Graduate College of Science, Technology and Research, Jalgaon established in 2010 which was only postgraduate college in Maharashtra in a science discipline. Due to the visionary management one could see in the college major expansion in terms of introducing Arts and Commerce faculties as well as academic program like M.Sc. Analytical Chemistry. College has 2(f) recognition by UGC and also accredited by NAAC and awarded B+ grade with the CGPA 2.52. IQAC of the college executed various quality initiative activities such as commencement of NPTEL, SWAYAM portal, PG Technologia, Prospective Researchers' Scheme, Skill and Personality Development Programmes, etc.

The program wise student's strength in the academic year 2021-22 is as follows:

| Sr. No | Program | No. of Students enrolled | | |
|--------|----------------------------|--------------------------|------------|------------|
| | | Male | Female | Total |
| 1 | M. Sc. Biotechnology | 17 | 32 | 49 |
| 2 | M.Sc. Organic Chemistry | 39 | 31 | 70 |
| 3 | M.Sc. Analytical Chemistry | 14 | 15 | 29 |
| 4 | M. Sc. Microbiology | 23 | 43 | 66 |
| 5 | M. Sc. Mathematics | 07 | 37 | 44 |
| 6 | M. Sc. Statistics | 27 | 19 | 46 |
| 7 | M. Com. | 22 | 14 | 36 |
| | Total | 149 | 191 | 340 |

Besides the above academic programs, the college conducts three skills based add on certificate courses out of which two are approved under 181 by KBCNMU, Jalgaon. In which 33 students were enrolled.

PG Technologia-2021-22, Animated Power Point Presentation Competition:

To understand the research methodology and basic concepts of research, the College have practice to conduct unique scheme, PG-Technologia in which 'Animated Science Power Point Competition' was organized on 10th May, 2022. This provide platform to the students to enhance the communication skill. This year 40 students from 5 departments show their hidden talent by participating in this competition. The prizes were awarded to the winner students and distributed at the auspicious hands of Prof. Dr. J. N. Chaudhari.



| Department | Name of the Student | Rank |
|-----------------------|----------------------------|-------------|
| Mathematical Sciences | Sharma Savitree Bajranglal | 1st |
| | Nikhil Kamlakar Patil | 2nd |
| | Kajal Vikas Sonkul | Consolation |
| Chemical Sciences | Wankhede Prajwal P (MJC) | 1st |
| | Sharma Sapna V | 2nd |
| | Patil Gayatri Bijendra | Consolation |
| Life Sciences | Yogendrasing N. Rajput | 1st |
| | Mali Samadhan Pandit | 2nd |
| | Rastogi Anupkumar S | Consolation |

Prospective Researchers' Scheme (PRS): It is a matter of pride for us that, to understand the research methodology and basic concepts of research, the College has initiated an exclusive research scheme for the budding researchers namely 'Prospective Researchers' Scheme' (PRS) since 2018-19. This provides a platform to the students to experience research culture at college level. This year 43 students from 4 departments completed 13 research projects under the guidance of 10 teachers. The uniqueness of the scheme is that, the research projects are evaluated by the experts in their field and best research projects are ranked and awarded cash prizes to the students enrolled for PRS in A. Y. 2020-21. The outcome of the research projects completed by the students is a compendium, 'A compendium of Research Articles by Prospective Researchers Volume –III' which was released on 22nd March 2022 at the auspicious hands of Honorable **Mr. D. T. Patil**, Treasurer, **K. C. E. Society** and Prof. **R. S. Patil**, Principal, Poojya Sane Guruji Vidya Prasarak Mandal's Arts, Commerce and Science College, Shahada. The list of the projects undertaken by the students under the guidance of supervisors is given in the table below.

**Prospective Researchers' Scheme (PRS) Academic Year 2021-22
(List of the student enrolled for PRS in A. Y. 2021-22)**

Department of Microbiology

| No. | Title of the project | Name of the student/students | Name of the supervisor/s |
|-----|---|---|--------------------------|
| 1 | Screening of Proteases producing microorganisms from Hot water spring | Paurnima Sharad Pawar, Rohini Sanjay Salunkhe, Monika Muralidhar Ghonge, Ojas Jitendra Hole and Paresh Sopan Kale | Mr. S. N. Patil |



| | | | |
|---|---|---|--------------------|
| 2 | Screening of microbes causing decay in fruits and vegetables. | Jagruti Satish Sapkale, Madhuri Sunil Patil, Ashwini Pandit Badgujar and Rupesh Madhav Barhate | Ms. D. R. Patil |
| 3 | Studies on salt tolerant Azotobacter from saline soil | Suprava Prabhu Panda, Tejal Lalit Bhatiya, Akash Shaligram Bari, Akshay Prasad Agrawal and Rahul Gokul Patil | Mrs. V. R. Punekar |
| 4 | Screening of Phosphatase solubilizing PGPR isolates from Rhizosphere | Kiran Pawar, Sapkale Jagruti, Lokansha Wagh and Chavan Pooja | Mr. S. N. Patil |
| 5 | Screening of potash mobilizing and nitrogen fixing microbes from the banana rhizosphere | Mahesh Gawali, Rohit Mali, Anil Shinde, Himanshu Pawar and Singa Padvi | Mrs. V. R. Punekar |
| 6 | Studies on Antimicrobial properties of Pistacia integerima | Narkhede Sayali Ravindra, Suryavanshi Vaishnavi R., Patil Bhagyashri K., Pawar Rutuja R. and Shimpi Pratiksha D. | Mr. S. N. Patil |
| 7 | Studies on Bioethanol Production using banana waste | Anuja Nitin Pingale, Pallavi Prakash Wagh, Mrunali Bhagavan Asodekar, Priyanka Motilal Chaudhari and Syed Mubina Hafeez Chaudhary | Ms. D. R. Patil |

Department of Organic Chemistry

| No. | Title of the project | Name of the student /students | Name of the supervisor/s |
|-----|--|---|--------------------------|
| 1 | Study of effect of Particle size and Catalyst on Chemical recycling of PET Waste | Miss. Neha Kosar, Mr. Shubham Budukule and Miss. Komal Shinde | Dr. V. S. Zope |



| | | | |
|---|---|--|-------------------------|
| 2 | One Pot Multicomponent Synthesis of Poly-substituted Pyridine by Using CeIV – CMC as an efficient & reusable catalyst | Mr. Yogesh Patil, Mr. Vishal Patil and Mr. Hitesh Thakare | Dr. R. M. Patil |
| 3 | Synthesis of Dihydropyrimidinone by Using Glycine as Catalyst | Miss. Nikita Gavale, Miss. Dhanashri Patil, Mr. Vikrant Khangar and Mr. Jayesh Khairnar | Miss. Rupali Chaudhari |
| 4 | One Pot Synthesis of 2-Amino 3,5 dicarbonitrile 6-ethoxy pyridine | Miss. Neha Patil, Miss. Pragati Patil, Miss. Jayshri Patil and Mr. Vinod Rajput. | Miss. Shalini Chaudhari |
| 5 | Reactivity of Tryptophan and Tyrosine for Synthesis of Azo Dyes | Miss. Yogeshwari Sonawane, Miss. Hemangi Patil, Miss. Ritika Pawar and Patil Pratik Sunil | Miss. Mansi Joshi |
| 6 | Synthesis of Schiff Base by using Fe(II) CMC | Mr. Saurabh Gujar, Mr. Rutvik Patil and Mr. Dipak Patil | Dr. R. M. Patil |
| 7 | Preparation and hysicochemical analysis of wine from banana fruit. | Mr. Sagar Chavhan, Mr. Hemant Chavhan, Mr. Dhiraj Patil and Mr. Shubham Janjal | Miss. Rupali Chaudhari |

Department of Biotechnology:

| No. | Title of the project | Name of the student /students | Name of the supervisor/s |
|-----|---|--|--------------------------|
| 1 | Preparation and characterization of Chitin nanofertilizers and their applications | Kranti More, Pritee Ingale, Srushti Ingale and Bhavana Gorane | Dr. S. S. Bari |
| 2 | Preparation and characterization of Chitosan nanofertilizers and their applications | Bhairavi Bhavsar, Shraddha Patil, Shital Patil and Larib Khan | Dr. S. S. Bari |



| | | | |
|---|---|---|--------------------|
| 3 | Isolation, Identification and Characterization of Lipolytic Bacteria from oilseed Carage soil | Anup Rastogi, Sonal Sonawane, Kaalyani Mahale and Puja Patil | Dr. S. A. Deshmukh |
| 4 | Isolation, Screening and Characterization and Production of Pectinase from Aspergillus Niger | Prarthana Bidkar, Harshala Patil, Rahul Patil and Harsha Randive | Dr. S. A. Deshmukh |
| 5 | Plant Tissue Culture and Studies of Pomagrante | Faizal Khan, Nikhil Marathe Rehan Pinjari, Gaurav Wani, Aishwarya Patil and | Prof. J. V. Khan |
| 6 | Isolation, Characterization and purification of latex protease of euphorbia leucocephala | Nilesh Patil, Gaurav Patil Harshal Patil, Jayesh Bhope and Dhanashri Dhurde | Prof. J. V. Khan |

Department of Statistics:

| No. | Title of the project | Name of the student /students | Name of the supervisor/s |
|-----|---|---|--------------------------|
| 1 | A Statistical Analysis of Stress Level Among Human Beings | Kadambari Mahajan, Aishwarya Patil Meghna Jadhav and Ashatai Jadhav | Prof. Kavita Dahake |
| 2 | Analysis of Heart Disease | Bharati Borase, Abhishree Deshpande Vikas Marathe, Ashwini Ghumare and Kaushik Kajale | Prof. Kavita Dahake |
| 3 | A Statistical Analysis of Impact of Covid-19 on Human Beings | Shashikant Jadhav, Shinde Rahul Nikam Vijay and Pol Saurabh | Prof. Kunjal Patil |
| 4 | A Statistical Analysis of Agricultural Production | Tanuja Patil, Varsha patil Roshni Wani and Nisha Wani | Prof. Kunjal Patil |
| 5 | Data driven analysis for determination of delivery type and prediction of | Anand patil, Manoj mahajan, Mitesh Gosavi and Chatur Kumbar | Prof. Pragati Neve |
| 6 | A Statistical Study of ersons with disability in India | Harshada Patil, Prayag Chavan Swati Patil and Nikita Bhamare | Prof. Pragati Neve |

Awards to the students

Annasaheb Dr. G. D. Bendale Scholarship was awarded for the academic year 2021-22 to eight economically weaker, aspirant and clever students as below

| Department | Name of the Student |
|----------------------|------------------------------|
| Organic Chemistry | 1. Kolambe Tushar Dinkar |
| | 2. Patil Vishal Sahebrao |
| Analytical Chemistry | 3. Chaudhari Tushar Manilal |
| Microbiology | 4. Chavhan Pooja Dnyaneshwar |
| | 5. Ghonge Monika Muralidhar |
| Biotechnology | 6. Patil Kavita Rajendra |
| Statistics | 7. Pol Saurabh Shamrao |
| Mathematics | 8. Pawara Vinesh Chamdya |

Toppers in college and Endowment Prize (Academic Year 2020-21)

| Sr No. | Name of the student | Department | Toppers in college |
|--------|-------------------------|-------------------|--------------------|
| 1 | Nisha Pukharaj Varma * | Organic Chemistry | First |
| 2 | Dhiren Kailash Patil | | Second |
| 3 | Vaishnawi Anil Dhake ** | Microbiology | First |
| 4 | Kolhe Vidya Vaijanath | | Second |
| 5 | Jadhav Rajeshwari Vijay | Statistics | First |
| 6 | Ingale Dipika Rajendra | | Second |
| 7 | Patil Priyanka Sanjay | Mathematics | First |
| 8 | Mahajan Maya Ravindra | | Second |

* First in M. Sc. Organic chemistry Sponsored by Dr. V. S. Zope

** First in M. Sc. Microbiology Sponsored by Dr. V. S. Zope

Miss. Nisha Varma qualified SET examination conducted by SPPU, Pune on 26th November, 2021 and Mr. Sunil Bodya Valavi qualified NET-JRF examination conducted by CSIR on June-2021.

Academic Collaboration: Department of Mathematics and Chemistry of the college are collaborated with M. J. College for the teaching and research activities. Dr. J. N. Chaudhari and Dr. Vasim Shaikh, of M. J. College imparted the instruction to PGCSTR students. Prof. Dnyaneshwar R. Nhavi and Prof. Neha A. Mahajan of PGCSTR imparted the instruction to Students of M. J. College.



**Co-curricular and Extra Curricular activities
organized by IQAC of the college:**

| Activity No | Date | Name of the Activity | No. of beneficiaries | Resource person/Guest/Organizer |
|-------------|------------|---|-----------------------|---|
| 1 | 15/08/2021 | Celebration of Independent day | Students and Staff | Eklavya Krida Sankul Ground |
| 2 | 05/09/2021 | Celebration of Teacher's Day | Students and Teachers | Respective Departments Staff |
| 3 | 21/12/2021 | Quiz and Poster Presentation on the theme of Indian Mathematicians on the occasion of National Mathematics day | 119 | Department of Mathematics of PGCSTR in collaboration with Department of Mathematics M. J. College, Jalgaon |
| 4 | 24/12/2021 | Intercollegiate Sport Competition: Hand Ball | 07 | KBCNMU, Jalagon (College of Education, Jalgaon) |
| 5 | 03/01/2022 | Poster and Essay writing competition on Community Health Awareness | 45 | Department of Microbiology |
| 6 | 10/01/2022 | Induction Training Workshop Topic covered: Governance, Code of conduct, research methodology and know your society(KCE) | 18 | Hon'ble Mr. N. G. Bendale Dr. A. R. Rane, Principal, College of Education Dr. K. P. Narkhede and Dr. J. N. Chaudhari, M. J. College, Jalgaon Dr. S. N. Bharambe Principal, M. J. College, Jalgaon |
| ,7 | 26/01/2022 | Celebration of Republic day | Students and Staff | Eklavya Krida Sankul Ground |
| 8 | 28/02/2022 | Celebration of National Science | 45 | Mr. Vishal Bhujbal, Institute for Advanced |



| | | | | |
|----|------------|--|-----|--|
| | | Day by Organizing webinar on Strategies to crack competitive examination in Microbiology | | Studies, Pune |
| 9 | 28/02/2022 | Celebration of National Science Day by Organizing webinar on Strategies to crack competitive examination in Mathematics and Statistics | 56 | Mr. Rohit Muranjan, Institute for Advanced Studies, Pune |
| 10 | 28/02/2022 | Celebration of National Science Day by Organizing webinar on Decoding Brighter Future Opportunities after post graduation in Chemistry | 52 | Mr. Rajiv Abhyankar, Institute for Advanced Studies, Pune |
| 11 | 28/02/2022 | Celebration of National Science Day by Organizing Rangoli competition | 25 | Department of Biotechnology |
| 12 | 08/03/2022 | International Women day was celebrated by organizing a seminar on the topic Yoga: Panacea for Women's Health | 161 | Prof. Gitanjali Bhangale, Soham Department of Yoga and Naturopathy |



| | | | | |
|----|--------------------------|---|-----|---|
| 13 | 07/04/2022 | Seminar on Intellectual Property Right | 166 | Dr. Vijay Srinath Kanchi, M. J. College, Jalgaon |
| 14 | 19/04/2022 | Guest Lecture on Diagnostic Techniques in Microbiology | 55 | Dr. Rahul Mayur, Nipun Pathology Laboratory, Jalgaon |
| 15 | 19/04/2022 to 23/04/2022 | Yuvarang: University Level Intercollegiate Youth Festival | 11 | Dr. R. M. Patil and Prof. Rupali Chaudhari worked as a Team Manager |
| 16 | 16/06/2022 to 28/06/2022 | Sports: Badminton, Cricket, Fitness and Management, Squash, Kabbadi and Kho-kho | 47 | Prof. J. V. Khan and Dr. Sarang S. Bari |
| 17 | | Yoga: Types of Aasan and Pranayaam | 36 | Prof. Kavita Dahake and Dr. Snehal A. Deshmukh |
| 18 | | Soft Skill: Resume writing, Doubt clearing session, communication skill | 107 | Prof. S. N. Patil and Ms. Pooja Mahajan |

ARTICLES

Youth is The Power of The Nation

Kadambari Dinesh Mahajan (M. Sc.–II, Statistics)

The power of youth is the commonwealth of the entire world. Youths play one of the most important roles in nation-building. Youth is not only the leaders of tomorrow but also the partners of today. Young people are social of change & progress. They are a crucial segment of the development of a nation.

It has the power to help a country develop & move toward progress. It also is responsible for bringing social reform within a country. The youth of a country determine the future of a nation. The faces of young people are the faces of our, our present & our future. No segment in the society can match the power, idealism, enthusiasm & courage of young people.

Youth is the most important & dynamic segment of the population in any country. It is believed that developing countries with large youth populations could see tremendous growth, provided they invest in young people's education and health & protect & guarantee their rights. The youth take responsibility and work in direction of development with loyalty and integrity.

The youth of a country activity participate & attain the zenith of success in the field of sports, arts, cultures, academics, business as well as political domain. Needless to say, the budding youth are considered future power as leads of the nation.

Youth is the basic driving force of a country & in India with around 65% youth population, the involvement of youth in the development process is of great importance. The point is to say that if they use it in constructive work, they can lead our India in a path of continuous progress & if they are it in destructive work, they may destroy their own & others life too. The youth are also expected to grow mentally & academically to be competent enough to play an important role in the prosperity of the nation. The dedication hard work, innovativeness & quest for knowledge of youth will not only help them to lead a satisfied life but will also be their contribution towards making India realize.

Dr. A.P.J. Kalam's message to youth: “Noneed to fear about the future because the ignited mind of the Youth is the most powerful resource on the earth, under the earth- above the earth.”

Intellectual Property and Development

Nikhil Anil Sonar (M. Sc.-I, Statistics)

Governments all over the world are looking for ways to improve their economies, help their citizens and build national capabilities in many areas of technology, information and culture. Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create.

By striking the right balance between the interests of innovators and the wider public interest, the IP system aims to foster an environment in which creativity and innovation can flourish. Intellectual property rights have great importance in the growth of a country. IP promotes innovation which leads to economic growth. Nowadays every business in the world is the creation of Innovation. The business sectors that depend on intellectual property protection represent an important growing part of every modern economy, particularly as these economies advance from dependence on agricultural, mineral and low value-added manufacturing to higher-value products and services. Intellectual property based sectors in both developed and developing countries are substantial drivers of GDP and employment growth.

A country like India which is one of the most developing economies in the world must focus on raising productivity in the market. India has always been known for outstanding services to the rest of the world. One can increase productivity by improving technology and method.

Patents are becoming increasingly important for companies and innovators in developing countries. Individuals and small and medium businesses in developing nations perceive the patent system in their own and other countries as advantageous for protecting and monetizing their discoveries.

The most important determinant of the success of an intellectual property rights regime is the competitive nature of the marketplaces in which an IPRS regime functions. One of the most important goals of IPRS is to stimulate investments in better product quality, which is typically a prerequisite for entering export markets. IPRS can help with marketing efforts that increase product demand and allow for increase in production scale of developing economies. Countries must have the freedom to base their individual strength of intellectual property protection on national factors.

World Intellectual Property Day IP & Youth

Saurabh Shamrao Pol (M. Sc.–II, Statistics)

Intellectual property rights are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain time. We celebrate World Intellectual property Day. World Intellectual Property Day is celebrated on the 26th of April. To learn about the role that intellectual property (IP) rights observed to spread awareness (Patents, Trademarks, Industrial design, Copyright) Play in encouraging innovation & creativity. The day recognizes the massive potential of the young period to find new & better solutions that support the transition to a sustainable future.

World IP Day 2021 highlights the key role IP rights play in helping SMEs strong, more competitive businesses, under for theme “Taking your idea to market” This year of world intellectual property day is IP & Youth: “Innovating for a Better Future” & celebrate the youth-led innovation & creativity. The youth of today is an incredible & largely untapped source of ingenuity & creativity.

It was established by the world intellectual property office (WIPO). Its property is the role of IP. World Intellectual property Day provides an opportunity for IP offices, inventors & enterprises opportunity for IP offices, inventors & enterprises whether big or small to discuss & connect about the emerging various innovation that will help shape the world & also improves the living of people. The campaign celebrates several inspiring inventors & creators across the globe who is working for a green future that is on cleaner alternatives to legacy fossil-fuel-based technologies & better & more sustainable food & natural resource. It will also focus on how innovation, development & diffusion tackle the climate crisis & build a green future.

History: It is committed to developing a balanced & approachable international intellectual property (IP) system that rewards. Creativity, encourage & innovation & economic development while safeguarding the public interest. In 2000, WIPO's convention came into force in 1970. They want to minimize the gap between IP as a business & Its relevance to people's lives.

Celebration: To promote World Intellectual Property Day every year, WIPO works together with several agencies of government, non-government, and community group's individuals to organize events & activities. Stage concerts or various public performances, Easy competitions for young people & also seminars or free lectures in several universities are provided to build awareness about IP & its benefit.

World IP Day message by: “Together we can innovate for a greener, brighter & more sustainable future.”

Intellectual Property and Youth for The Nation Development

Nikhil Kamalakar Patil (M. Sc.-I, Statistics)

Youth is an important aspect of a developing country like India .About 1/4th of the voter of country are youth . Youth contribute about 34 percent to the national income. According to Population Projections for India and States 2011-2036, prepared by the Government of India, the youth population in the age group 15-24 years was expected to show some growth from 233 million in 2011 to 251 million in 2021 and then decrease to 239 million in 2036. India has a large population base in this age group. However, the percentage may be higher if we consider people up to 35 years of age. It is estimated that there are 1.8 billion young people (aged 24) in the world today and 90% of them are from developing countries. We, in India, are at the peak of young population commonly called as youth. We must make the best use of the energy, creativity and risk-taking ability of the youth and plan for the upcoming years.

In India as the Population is increasing ,the battle for employment is also increasing in this situation the youth can earn by doing creative things like web design blogging ,logging, start-ups ,new patent filing ,new discoveries , exploring unexplored fields and many more new things that they enjoy and such creativity and innovation should be supported and motivated and protected also.

Innovation by the youth need to be supported by Intellectual property rights to transform their ideas into reality, generate income, create jobs and make a positive impact on the society. Concerted efforts must be made towards creating awareness and educating the youth about intellectual property and its right. It is generally observed that youngsters are not conversant about principles of IPR. They launch their businesses without protecting their work, which could be detrimental in the future.

The Government of India has been promoting IPR filing by youth by many good and essential schemes. Special concessions in filing fees have been provided for start-ups, university faculties and SMEs. All these schemes must be communicated in social media as well as in print media. The CII (The Confederation of Indian Industry) takes up various policy issues with the Government of India and international agencies from time to time to strengthen our country's IP framework and turn it into a hub of IP driven industries. Youth are the Backbone of the country and their creativity should be cherished as well acknowledged as encouraging them will also play a vital role in improving the intellectual property in India and develop our Country as a World Superpower.

Intellectual Property

Mahipal Rajput (M. Sc.-I, Organic Chemistry)

Properties are of two types one is tangible while other is intangible, we know tangible properties include properties which have physical existence like land, house, car, etc but what about intangible properties? Intangible properties are those properties which do not have physical existence which includes patent, trademarks, trade secrets, copywriter's etc. These properties are called as intellectual property.

Any idea or thought process that arrives in anyone's brain is called as intellectual property. According to Population Projection for India and States 2011-2036, prepared by government of India, the youth population in the age group 15-24 years was expected to show some growth from 233 million in 2011 to 256 million in 2021 and then decrease to 239 million in 2036. India has a large population base in this age group. However, the percentage may be higher if we consider people up to 35 years of age. It is estimated that there are 1.8 Billion young people (aged 24) in the world and 90% of them are from developing countries. We, in India, are at the peak of young population pyramid. We must make the best use of energy, creativity and risk taking ability of the youth and plan for next 10 years.

The young population was so much creative and enormous power which can be utilize for development and betterment of the Nation. The creative brains and different thinking capacity and ideology put the nation and the different level. Now we see creativity at different social media, the youth from remote or ruler areas make some "Jugaad" try to give solution to their various daily problems. The Jugaads which no one can think and no one has ideas we called them as "Desi Jugaad." But are they really getting a benefit of it? No! in most of the cases someone else stole is ideas take a benefit of it.

Innovation by the youth need to be supported by IP rights to transform their ideas into reality, generate income, create jobs and make a positive impact on the society. Concerted efforts must be made awareness and educating the youth about IPR. It is generally observed that youngsters are not conversant about principles of IPR. They launch their business without protecting their work, which could be detrimental in future. When you try to protect you IP then it is your intellectual property work, it is same as registering your land on your name at register office. This ideas and innovation are registered at IP office. IP Is Everywhere, In Everything from Pin To Aeroplane



सूक्ष्मजीव: रहस्य अदृश्य जीवनाचे....

Prof. Sandip N. Patil (Department of Microbiology)

जगात डोळ्यांनी दिसणाऱ्या जीवांच्या व्यतिरिक्त नुसत्या डोळ्यांनी दिसून शकणारी अदृश्य सजीव रूपे अस्तित्वात आहेत, याचा शोध सतराव्या शतकात लागला. मानवी इतिहासात लागलेला हा महत्त्वपूर्ण शोध होता. मायक्रोब (सूक्ष्मजीव) हा शब्द एकोणिसाव्या शतकात, या जीवांचे वर्णन करण्यासाठी तयार करण्यात आला. सूक्ष्मदर्शकाच्या विकासाबरोबर सूक्ष्मजीवविज्ञानाची सुरुवात झाली असे म्हणता येते. सूक्ष्मजीवविज्ञानाचा एका विज्ञानशाखेत विकास झाला. सूक्ष्मजीव हा अगदी भिन्न अशा जीवांचा अतिशय मोठा गट आहे. सूक्ष्मजीव विज्ञानाची सूक्ष्मजंतुविज्ञान, आदिजीवविज्ञान, विषाणुविज्ञान उपशाखांत विभागणी होते. सूक्ष्मजंतूंची विविधता अफाट आहे. माणसाचे दैनंदिन जीवन सूक्ष्मजीवांशी अगदी मिसळून आहे. जमीन, हवा, पाणी यांत सूक्ष्मजीव विपुल प्रमाणात आढळतात. सूक्ष्मजीवांच्या अस्तित्वाचा अनुभव कधी अनुकूल तर कधी प्रतिकूल स्वरूपात येत असतो. मानवी उपयोगितेच्या वस्तूंचा सूक्ष्मजीव न्हास घडवून आणतात किंवा त्यांच्यामुळे रोग होतात. रोगाचे संक्रामण करणारा सूक्ष्मजीव हा संसर्गकारक असून तो एका रुग्णाकडून दुसरीकडे जातो हे त्यांचे दुष्परिणाम आहेत. अल्कोहॉलाचे मद्यात रूपांतर होणे, पावाचे पीठ फुगणे, निरनिराळ्या व्यंजनांना स्वाद आणणे आणि दुधापासून दही तयार करणे तसेच प्रतिजैवके बनविणे, हे सूक्ष्मजीवांच्या फायदे आहेत.

आज अनेक रोगकारक सूक्ष्मजंतू माहीत झाले आहेत आणि त्यांचे नियंत्रण करण्याच्या पद्धती विकसित झाल्या. उद्योगधंद्यांमध्येही सूक्ष्मजंतूंचा प्रभावी रीतीने वापर करून घेण्यात आला आहे. त्यांच्या क्रियांना दिशा देण्यात आली. त्यामुळे मूल्यवान अशी व्यापारी व कृषी उत्पादने मिळविणे फायदेशीर झाले आहे.

मातीमध्ये जीवाणूंची मोठी जैवविविधता असून, त्यांची संख्याही विपुल आहे. त्यांचा उपयोग पिकांच्या उत्पादन वाढीसाठी विविध प्रकारे करून घेणे शक्य आहे. शेगावर्गीय पिकामध्ये मुळांवर येणाऱ्या गाठी व ते स्थिर करित असलेल्या नत्राचा लाभ घेता येतो. त्यामुळे आंतरपीक किंवा फेरपालटासाठी म्हणून तृणधान्य पिकासोबत कडधान्य पिकांची लागवड केली जाते. शेतीमध्ये बदल घडविण्याची क्षमता असलेल्या अनेक उपयुक्त जीवाणूंचा शोध घेऊन त्यांचा अधिकाधिक वापर करण्यासाठी जगभरातील विद्यापीठे आणि शोध संस्थाने संशोधन करित आहेत.

सूक्ष्मजीवविज्ञानाच्या दृष्टीने १९४०-५० या दशकापासूनचा काळ अतिशय फलदायी असा ठरला. चयापचयासारख्या गुंतागुंतीच्या प्रक्रियांचा अभ्यास करण्यासाठीच्या द्रव्याविषयीचे काम करणे सोपे झाले.



सूक्ष्मजीवविज्ञानावर इतर विज्ञानांचा आणि पर्यायाने इतर विज्ञानांवर सूक्ष्मजीवविज्ञानाचा प्रभाव पडला आहे. संसर्गजन्य रोग व रोगप्रतिकारक्षमता यांचे अनुसंधान चालू असताना सूक्ष्मजंतूंच्या इतर क्रियाही माणसाच्या दृष्टीने महत्त्वाच्या असल्याचे दिसून आले. दुग्धव्यवसायातील अनेक गोष्टींमधील सूक्ष्मजंतूंच्या क्रियाशीलतेचे महत्त्व त्याच सुमारास लक्षात आले.

अशा प्रकारे काही दशकांतच सूक्ष्मजंतूंच्या अध्ययनात प्रचंड प्रगती झाली. सूक्ष्मजंतूंच्या क्रियाशीलतेचा मानवी कार्यातील अनेक बाबींशी निकटचा संबंध असतो, ही गोष्ट विसाव्या शतकापर्यंत लक्षात आली. फंगस (कवक) हा भूछत्रासाठी असलेला लॅटिन शब्द आहे. सूक्ष्मजीवविज्ञानात यीस्ट आणि बुरशी या कवकांविषयी सर्वाधिक जिज्ञासा आहे. अनेक बुरशींचा अभ्यास त्यांच्या आर्थिक महत्त्वामुळे करतात. उदा., म्युकर या कवकांमुळे भाज्या व फळे खराब होतात. तथापि ते चीज या पदार्थांचे काही प्रकार तयार करण्यासाठीही वापरतात.

पृथ्वीच्या बाह्य वातावरणात सूक्ष्मजीवांचे अस्तित्व आहे का ? तसेच पृथ्वीखेरीज इतर ग्रहांवर सूक्ष्मजीव आहेत का ? याचा शोध संशोधक घेत आहेत यामध्ये सूक्ष्मजीवांचा शोध घेऊन त्यांचा उपयोग अंतराळयानात अन्न व प्राणवायूच्या पुरवठ्यासाठी कसा करता येईल याबाबत संशोधन केले जात आहे. सूक्ष्मजीवविज्ञानाचा नकारात्मक विकास म्हणजे जैव युद्धतंत्र होय. युद्धात हत्यारांसारखा उपयोग करण्यासाठी सूक्ष्मजंतू निवडून त्यांची वाढ करतात. या सूक्ष्मजीवांमुळे वनस्पती, प्राणी व माणूस यांना इजा पोहोचतात किंवा रोग होतात. या अदृश्य जिवाचा योग्य व जाणीवपूर्वक वापर नक्कीच लोक हितकारक ठरू शकतो.



राष्ट्रासाठी बौद्धिक संपदा आणि तरुण

Akshay Kishor Patil (M. Sc.-I, Organic Chemistry)

बौद्धिक संपदा अधिकार म्हणजे काय?

जेव्हा एखादी व्यक्ती किंवा संस्था आपल्या बुद्धीचा वापर करून एखादी निर्मिती करते, तेव्हा त्या निर्मितीवर मर्यादित काळापुरती तिला प्राप्त झालेली मक्तेदारीत्या निर्मितीच्या प्रकारावरून बौद्धिक संपदा हक्क वेगवेगळ्या प्रकारचे असतात.

तरुण वर्गाला 'बौद्धिक संपदे'ची महिती कळाली, तर अधिक प्रमाणात तरुण वर्गसंशोधनाकडे आणि नवीन तंत्रज्ञानाच्या निर्मितीकडे वळेल. त्यातून अनेक जागतिक प्रश्नांवर उत्तरे सापडू शकतील. भारताने या आघाडीवर विशेष लक्ष देण्याची गरज आहे. २६ एप्रिल हा 'जागतिक बौद्धिक संपदा दिन' म्हणून पाळला जातो. संयुक्त राष्ट्रसंघाच्या विषयनिहाय अनेक संस्था कार्यरत आहेत. अशाच प्रकारे बौद्धिक संपदा म्हणजे पेटंट, ट्रेडमार्क, कॉपीराइट किंवा भौगोलिक उपदर्शन या जागतिक स्तरावरील महत्त्वाच्या विषयांसाठी १९६७ मध्ये 'जागतिक बौद्धिक संपदा संघटना' निर्माण करण्यात आली. जागतिक बौद्धिक संपदा संघटनेची १९३ सदस्यराष्ट्रे आहेत. भारतही या संघटनेचा अगदी सुरुवातीपासून सदस्य असल्याने या संघटनेच्या कराराला अनुसरून भारताने आपले बौद्धिक संपदाविषयक कायदे निर्माण केले आहेत. या कायद्यांचा खास प्रत्यय कोविडच्या कालावधीत आला. एका सदस्य राष्ट्राने तयार केलेल्या कोविडवरील लशीला जर पेटंट मिळालेले असेल तर ती लस दुसऱ्या सदस्यराष्ट्रात परवानगीशिवाय बनविता येणार नाही. म्हणजेच जागतिक बौद्धिक संपदा संघटनेच्या सदस्य राष्ट्रांमध्ये एकमेकांच्या बौद्धिक संपदा संरक्षणाच्या संदर्भात समन्वय निश्चित झालेला आहे. हे लक्षात घेता 'जागतिक बौद्धिक संपदा संघटने'ला अलीकडच्या काळात मोठे महत्त्व प्राप्त झाले आहे.

व्यवस्थापन कौशल्य मानवी उद्योगात, कार्यक्रमात, उपक्रमांत विशेष महत्त्वाची बाब आहे. एखादी कामगिरी सुरळीत पार पाडावयास व्यवस्थापन कौशल्य महत्त्वाचे असते. व्यवस्थापन या शब्दाच्या अमेरिकन व्यवस्थापन संस्थेने ५२ व्याखा दिल्या आहेत. विश्व बौद्धिक संपदा संस्थेनुसार आंतरराष्ट्रीय पेटंट नावावर करून घेण्यात चीनचा क्रमांक २०१४ साली तिसरा होता. गेल्या काही वर्षांत भारताचा पेटंट करण्याचा वाटा १८ टक्क्यांवरून २३ टक्क्यांपर्यंत उंचावला आहे.

बौद्धिक संपदेची संकल्पना:-मालमत्ता ही एक मालमत्ता आहे जी मालकीची असू शकते. मालमत्तांचे दोन व्यापक प्रकार आहेत. पहिल्या प्रकारची मालमत्ता मूर्त आहे. मूर्त मालमत्तेमध्ये अशा वस्तूंचा समावेश होतो ज्यांना पाहिले आणि स्पर्श करता येतो. मूर्त मालमत्तांमध्ये रिअल इस्टेट, कार, दागिने आणि कपडे यांचा



समावेश होतो. आणखी एक प्रकारची मालमत्ता अमूर्त आहे. एक अमूर्त मालमत्ता म्हणजे जी पाहिली जाऊ शकत नाही. अमूर्त मालमत्तेच्या उदाहरणांमध्ये पुस्तके, मासिके किंवा संगीतामध्ये समाविष्ट असलेल्या कल्पनांचा समावेश होतो.

बौद्धिक संपदेचा उद्देश्य:-बौद्धिक संपदा कायद्याचा उद्देश एक फ्रेमवर्क तयार करणे आहे जे मूल्य निर्मितीला प्रोत्साहन देते-विशेषतः, नवीन कल्पना आणि आविष्कारांचा विकास-जेव्हा चांगल्या किंवा सेवेसाठी सार्वजनिक प्रवेश प्रदान करते.

बौद्धिक संपदा अधिकार:-बौद्धिक संपदा अधिकार (IPR) म्हणजे शोधक किंवा निर्मात्याला त्याच्या आविष्काराचे किंवा निर्मितीचे विशिष्ट कालावधीसाठी संरक्षण करण्यासाठी दिलेले कायदेशीर अधिकार . हे कायदेशीर अधिकार शोधक/निर्मात्याला किंवा त्याच्या नियुक्तीला दिलेल्या कालावधीसाठी त्याचा शोध/निर्मिती पूर्णपणे वापरण्याचा विशेष अधिकार देतात.



थकलो आज जरी मी

Vishal Sahebrao Patil (M. Sc.-I, Organic Chemistry)

थकलो आज जरी मी हा माझा अंत नाही.

एवढ्यात समाधान मानण्याला मी काही संत नाही.

राबेन पुन्हा एकदा जोवर ध्येय आहे.

गंगे समान जीवनाने कुठेच थांबु नये.

मला उध्वस्त करण्याचे केलेत कैक कावे.

उद्ध्वस्त होईल मी अशी पडकी भीत नाही.

लागू द्या ठोकर ककतीही, अजून सामर्थ्य जीवंत आहे.

चाचपुन घ्या स्वतःला जो मला उध्वस्त करू पाहे.

माझ्या पाठीशी असण्याचे केलेत कैक दावे.

हसून घ्या माझ्यावर परंतु माझे प्रयत्न नाशवंत नाही.

मी जरी वृक्ष वाळलेले असलो तरी कैक वेल मी पोसलेले आहेत.

फुटेल पालवी पुन्हा एकदा, माझ्यात अजून कर्म जीवंत आहे.

Department Profile

1. CHEMISTRY:

- Prof. Dr. V. S. Zope awarded certificate of excellence in reviewing a research article of the journal “International Journal of Plant and Soil Science” on 29th March, 2022.
- Mr. Sunil B. Valvi Qualified NET- JRF CSIR examination in Chemical Sciences held on 24th Jan- 2022 with all India 148 Rank.
- Miss. Nisha P. Verma Qualified SET examination in Chemical sciences held on 26th September- 2021.
- Dr. R.M.Patil, successfully completed 4 week orientation program with 'A' grade held on 19th July, 2022 organized by Teaching, Learning Centre, Ramanujan College, University of Delhi.

Conference/ Seminar /Workshop/Webinar Organized

- Dept. of chemistry, KCES's Post Graduate College of Science, Technology and Research, Jalgaon organized one day webinar on Decoding brighter future opportunities after post graduation in chemistry on 28th Feb 2022.
- Dept. of chemistry, KCES's Post Graduate College of Science, Technology and Research, Jalgaon organized one day webinar on Strategies to crack state level competitive examination (MPSC- Forensic Science) on 04th may 2022.

Conference/ Seminar /Workshop/FDP/Webinar attended /participated / Presented paper

| Sr. No | Name of the teachers | National/ International/ State / local | Name of Conference/ Seminar / Workshop/ Webinar | Title | Organizer | Date | Attended / Presented Resource person |
|--------|------------------------|--|---|--|--|--------------------|---|
| 1 | Prof. (Dr.) V. S. Zope | State | Workshop | Workshop on Practicing NET/SET examination in Chemistry | School of Chemical Sciences, KBC North Maharashtra University, Jalgaon | 27th April, 2022 | Chaired a Technical Session of Physical Chemistry |
| 2 | Prof. (Dr.) V. S. Zope | State | Workshop | Syllabus Freming Workshop for M. Sc. Analytical Chemistry | KBC North Maharashtra University and Bhole College, Bhusawal | 30th April, 2022 | Expert |
| 3 | Dr. R. M. Patil | State level | Five Days Training Workshop | Five Days "Hands On Training Workshop On Advanced Techniques In Nanosciences And Nanotechnology" | School Of Nanoscience And Technology, Shivaji University, Kolhapur, Under UGC-STRIDE | 10-14th March 2022 | Attended |
| 4 | Dr. R. M. Patil | National | One week Faculty Development Program | Use of ICT Tools for Enhancing Quality of Higher Education in India | KCE Society's College of Engineering and Information Technology, Jalgaon | 9-15th Feb 2022 | Attended |
| 5 | Dr. R. M. Patil | University Level | Workshop | Framing of the syllabus of M.Sc. II organic chemistry | Dept. of chemistry S.S.V.P. Santha's L.K.Dr P.R.Ghogre Science | 18th June 2022 | Attended |



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|----|---------------------------------|---------------------|----------|--|--|----------------------|----------|
| | | | | | College, Dhule. | | |
| 6 | Dr. R. M. Patil | University Level | Seminar | Intellectual Property Right | K.C.E's Post Graduate College of Science, Technology and Research, Jalgaon | 7th April 2022 | Attended |
| 7 | Dr. R. M. Patil | State | Webinar | Strategies to crack state level competitive examination (MPSC- Forensic Science) Dept. of chemistry | K.C.E's Post Graduate College of Science, Technology and Research Jalgaon | 04th may 2022 | Attended |
| 8 | Miss. Rupali A Chaudhari | State | Webinar | Decoding brighter future opportunities after post graduation in chemistry Dept. of chemistry | K.C.E's Post Graduate College of Science Technology and Research, Jalgaon | 28th Feb 2022 | Attended |
| 9 | Miss. Rupali A. Chaudhari | State | Webinar | Strategies to crack state level competitive examination (MPSC- Forensic Science) Dept. of chemistry | K.C.E's Post Graduate College of Science Technology and Research Jalgaon | 04th may 2022 | Attended |
| 10 | Miss. Rupali A. Chaudhari | University Level | Workshop | Framing of the syllabus of M.Sc. II organic chemistry | Dept. of chemistry S.S.V.P Santha's L.K.Dr. P.R | 18th June 2022 | Attended |



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|----|-----------------------|------------------|---------|---|---|----------------|----------|
| | | | | | Ghogre Science College, Dhule. | | |
| 11 | Mrs Shalini Chaudhari | State | Webinar | Strategies to crack state level competitive examinations (MPSC- Forensic Science) | Department of Chemistry PGCSTR College Jalgaon | 4th May 2022 | Attended |
| 12 | Mrs Shalini Chaudhari | State | Webinar | Decoding Brighter Future Opportunities after Post Graduation in Chemistry | Department of Chemistry, PGCSTR College, Jalgaon | 28th Feb 2022 | Attended |
| 13 | Mrs Shalini Chaudhari | University Level | Seminar | Intellectual Property Right | K.C.E's Post Graduate College of Science, Technology and Research Jalgaon | 7th April 2022 | Attended |
| 14 | Miss. Manasi D. Joshi | University Level | Seminar | Intellectual Property Right | K.C.E's Post Graduate College of Science, Technology and Research Jalgaon | 7th April 2022 | Attended |
| 15 | Miss. Syd Zarin Javed | University Level | Seminar | Intellectual Property Right | K.C.E's Post Graduate College of Science, Technology and Research Jalgaon | 7th April 2022 | Attended |
| 16 | Miss. Syd Zarin | State | Webinar | Decoding brighter | Dept. of chemistry, | 28th Feb | Attended |



| | | | | | | | |
|--|-------|--|--|---|--|------|--|
| | Javed | | | future opportunities after post graduation in chemistry | K.C.E's Post Graduate College of Science Technology and Research Jalgaon | 2022 | |
|--|-------|--|--|---|--|------|--|

Research Publication:

| Sr. No. | Name of the Teacher | Title of Paper | Journal / Book | Volume/year |
|---------|---------------------------|---|---|---------------------|
| 1 | Dr. V. S. Zope | Hydrolysis Of Poly-Ethylene Terephthalate Waste Using High Pressure Autoclave: A Chemical Recycling | International Journal of Basic and Applied Chemical Sciences ISSN: 2277-2073 | Vol.12, pp.1 5/2022 |
| 2 | Miss. Rupali A. Chaudhari | Review of Mesoporous Materials | A Compendium of Research Articles by Prospective Researchers volume III 2020-21 | 2020-21 |
| 3 | Miss. Rupali A. Chaudhari | A Review on Synthesis of Schiff's base Complexes and its biological activities | A Compendium of Research Articles by Prospective Researchers volume III 2020-21 | 2020-21 |
| 4 | Dr. R. M. Patil | A mini Review on a Fluorescent Chemosensor for Cu ²⁺ Ions | A Compendium of Research Articles by Prospective Researchers volume III 2020-21 | 2020-21 |
| 5 | Dr. R. M. Patil | Review on Carbon carbon coupling reactions using palladium as a catalyst | A Compendium of Research Articles by Prospective Researchers volume III 2020-21 | 2020-21 |

2. MICROBIOLOGY

Prof. S. N. Patil Life member of Microbiologist Society of India from 18th February 2021 MS/LM/574

Conference/ Seminar /Workshop/FDP/Webinar attended /participated / Presented paper

| Sr. No | Name of the teachers | National/International/State/local | Name of Conference Seminar Workshop Webinar FDP | Title | Organizer | Date | Attended Presented Organized Resource person |
|--------|----------------------|------------------------------------|---|---|---|--------------------------|--|
| 1 | Mr. S. N. Patil | Local | workshop | Soft Skill Training Workshop | IQAC KCES PGCSTR Jalgaon and NPTEL IIT Madras | 14/06/2022 to 21/06/2022 | Organized |
| 2 | Mr. S. N. Patil | Local | Seminar | on Intellectual Property Right | IQAC KCES PGCSTR Jalgaon | 07th April 2022 | Organized |
| 3 | Mr. S. N. Patil | Local | workshop | “Yoga: Panacea for Women's Health” | IQAC KCES PGCSTR Jalgaon | 07th March 2022 | Organized |
| 4 | Mr. S. N. Patil | Local | Seminar | Strategy to crack competitive examination in microbiology | IQAC KCES PGCSTR Jalgaon Institute or advance studies pune | 28 February 2022 | Organized |
| 5 | Mr. S. N. Patil | National | AICTE Training & Learning (ATAL) Academy Online Elementary FDP" | Leadership and Excellence in Higher Education | "RCPET's R. C. Patel Arts, Commerce and Science College, Shirpur. | 23/08/2021 to 27/08/2021 | Attended |



| | | | | | | | |
|----|--------------------|----------|--|---|---|-----------------------------|-----------|
| 6 | Mr. S. N. Patil | National | AICTE Training & Learning (ATAL) Academy Online Elementary FDP | on "Stress Management" | VNR Vignana Jyothi Institute of Engineering and Technology | 13/09/2021 to 17/09/2021 | Attended |
| 7 | Mr. S. N. Patil | National | Faculty Development Program | Use of ICT Tools for Enhancing Quality of Higher Education in India . | KCES College of Engg & Mgt, Jalgaon and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi | 09th Feb. to 15th Feb. 2022 | Attended |
| 8 | Mr. S. N. Patil | Local | Induction training Workshop | Induction training Workshop | IQAC KCES PGCSTR Jalgaon | 10 Jan. 2022 | Organiesd |
| 9 | Mrs. D. G. Bhamare | Local | Induction training Workshop | Induction training Workshop | IQAC KCES PGCSTR Jalgaon | 10 Jan. 2022 | Attended |
| 10 | Mrs. D. G. Bhamare | Local | Seminar | Strategy to crack competitive examination in microbiology | IQAC KCES PGCSTR Jalgaon Institute for advance 4studies pune | 28 Feb. 2022 | Attended |
| 11 | Mrs. D. G. Bhamare | Local | Seminar | on Intellectual Property Right | IQAC KCES PGCSTR Jalgaon | 07 th April 2022 | Attended |
| 12 | Mrs. V. R. Punekar | Local | Seminar | on Intellectual. Property Right | IQAC KCES PGCSTR Jalgaon | 07 th April 2022 | Attended |
| 13 | Ms. B.J. Wani | Local | Induction training Workshop | Induction training Workshop | IQAC KCES PGCSTR Jalgaon | 10 Jan. 2022 | Attended |



| | | | | | | | |
|----|--------------------|-------|----------|------------------------------------|---------------------------|-----------------|----------|
| 14 | Ms. B.J. Wani | Local | workshop | “Yoga: Panacea for Women's Health | IQAC KCES ”PGCSTR Jalgaon | 07th March 2022 | Attended |
| 15 | Mrs. D. G. Bhamare | Local | workshop | “Yoga: Panacea for Women's Health” | IQAC KCES PGCSTR Jalgaon | 07th March 2022 | Attended |

Research Publication:

| Sr. No. | Name of the Teacher | Title of Paper | Journal | Volume /year |
|---------|---------------------|--|---|--------------|
| 1 | Mr. S. N. Patil | A Study of Farmers Awareness Towards Bio-fertilizer and Bio-control Consumption in Jalgaon | A Compendium of Research Articles by Prospective Researchers volume III | 2020-21 |
| 2 | Mr. S. N. Patil | A survey of Antibiotics Usage and It's Awareness | A Compendium of Research Articles by Prospective Researchers volume III | 2020-21 |
| 3 | Mr. S. N. Patil | Awareness on Health, Probiotics And Hygiene | A Compendium of Research Articles by Prospective Researchers volume III | 2020-21 |
| 4 | Mrs. D. G. Bhamare | A Study of Farmers Awareness Towards Bio-fertilizer and Bio-control Consumption in Jalgaon | A Compendium of Research Articles by Prospective Researchers volume III | |

3. BIOTECHNOLOGY

Conference/ Seminar /Workshop/FDP/Webinar attended /participated / Presented paper

| Sr. No | Name of the teachers | National International State local | Name of Conference Seminar Workshop Webinar/ | Title | Organizer | Date | Attended Presented Resource person |
|--------|----------------------|------------------------------------|--|--|--|-----------------|------------------------------------|
| 1 | Prof. J. V. Khan | National | Workshop | Entrepreneurship Development at Academic Campus | KCE Society's PGCSTR Jalgaon | 5th June 2021 | Attended |
| 2 | Prof. J. V. Khan | National | Training | Induction Training Programme for faculty members | KCE Society's PGCSTR, Jalgaon | 10th Jan., 2022 | Attended |
| 3 | Prof. J. V. Khan | National | Workshop | Intellectual Property Right (IPR) | KCE Society's PGCSTR Jalgaon | 07th April 2022 | Attended |
| 4 | Dr. S. S. Bari | National | Workshop | Entrepreneurship Development at Academic Campus | KCE Society's PGCSTR, Jalgaon | 5th June, 2021 | Attended |
| 5 | Dr. S. S. Bari | National | Training | Induction Training Programme for faculty members | KCE Society's PGCSTR Jalgaon | 10th Jan 2022 | Attended |
| 6 | Dr. S. S. Bari | National | Faculty Development | Programme on Use of ICT Tools for Enhancing Quality of Higher Education in India | KCE Society's College of Engg & Mgt, Jalgaon | Feb. 9-15, 2022 | Participated |
| 7 | Dr. S. S. Bari | National | Workshop | Intellectual Property | KCE Society's PGCSTR, Right (IPR) | 07th April 2022 | Attended |



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|----|--------------------|---------------|------------|---|--|------------------------|--------------|
| 8 | Dr. S. A. Deshmukh | National | Training | Induction Training Programme for faculty members | KCE Society's PGCSTR, Jalgaon | 10th Jan 2022 | Attended |
| 9 | Dr. S. A. Deshmukh | National | Conference | Advances tools and techniques in Agriculture Horticulture, Environment and Biotechnological Sciences in Current Era | Organized by Department of 13th Biotech.and Microbiology, Kalp laboratories Mathura | 12th to July 2021 | Participated |
| 10 | Dr. S. A. Deshmukh | National | Webinar | Canopy Architecture Management in Perennial Commercial Horticulture Crops | Organized by University of Horticulture Sciences Bagalkot college of Horticulture, Bidar | 19th to 20th July 2021 | Participated |
| 11 | Dr. S. A. Deshmukh | International | Conference | Impact of Environment on Agriculture, Health, Water, Resources Social life and Industrial development | Organized by Maharashtra Mahavidyalaya Nilanga and Azad Mahavidyalaya | July 2021 | Attended |
| 12 | Dr. S. A. Deshmukh | National | Workshop | Intellectual Property Right (IPR) | KCE Society's PGCSTR Jalgaon | 07th April 2022 | Attended |

4. MATHEMATICS

Conference/ Seminar /Workshop/Webinar Organized

- Dept. of Mathematics, KCES's Post Graduate College of Science, Technology and Research, Jalgaon collaboration with Department of Mathematics M. J. College, Jalgaon organized Quiz and Poster Presentation on the occasion of National Mathematics day on 21st December, 2021.
- Dept. of Mathematics, KCES's Post Graduate College of Science, Technology and Research, Jalgaon organized one day webinar on Celebration of National Science Day on Strategies to crack competitive examination in Mathematics and Statistics on 28th February, 2022.

Conference/ Seminar /Workshop/FDP/Webinar attended /participated / Presented paper

| Sr. No | Name of the Teacher | Name of Conference Workshop Seminar | Topic | Organizer | Date/ Remark |
|--------|---------------------|---|---|--|-------------------------------------|
| 1 | Mr. D. R. Nhavi | Faculty Development Program | Use of ICT Tools for Enhancing Quality of Higher Education in India | KCE Society's College of Engineering and Management and Guru Anand Dev Teaching Learning Centre of SGTB Khalsa College, Ministry of Education, University of Delhi | 9-15 February 2022 |
| 2 | Mr. D. R. Nhavi | National Conference on Mathematical Analysis and Applications | Mathematical Analysis and Applications | Shivaji University, Kolhapur | Paper Presentation 21-22 March 2022 |
| 3 | Mr. D. R. Nhavi | One day seminar on Intellectual Property Right | Intellectual Property Right | K.C.E. Society's post Graduate College of Science, Technology and Research, Jalgaon | 07th April 2022 |



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|---|----------------------|--|--|---|-------------------------------|
| 4 | Mr. D. R. Nhavi | Seminar | Strategy to crack competitive examination in Mathematics | KCES's PGCSTR, and Institute for advance studies pune | 28 February 2022 Organized |
| 5 | Mrs. Neha A. Mahajan | One day seminar on Intellectual Property Right | Intellectual Property Right | K.C.E. Society's post Graduate College of Science, Technology and Research, Jalgaon | 07th April 2022 |

Research Publication:

| Sr. No. | Name of the Teacher | Title of Paper | Journal / Book | Volume/year |
|---------|---------------------|---|--|----------------|
| 1 | Mr. D. R. Nhavi | Fixed Point Theorems satisfy Phi-maps in Gb-metric space | Research Journey International E-Research Journal ISSN No. 2348-7143 | 291/2022 |
| 2 | Mr. D. R. Nhavi | Coupled Fixed point theorems in Partially Ordered Gb-Metric Space | Journal of Calcutta Mathematical Society ISSN No. | Submitted 2021 |
| 3 | Mr. D. R. Nhavi | Results on Fixed Point for a generalized Alpha-Psi-Phi contractive Integral type mapping in Gb-Metric Space | Bulletin of Calcutta Mathematical Society ISSN No. | Submitted 2021 |

5. Statistics

Conference/ Seminar /Workshop/FDP/Webinar attended /participated / Presented paper

| Sr. No | Name of the Teacher | Name of Conference Workshop Seminar | Topic | Organizer | Date/ Remark |
|--------|------------------------|---|---|---|--------------------------------|
| 1 | Miss. Kavita S. Dahake | Three-Day International Workshop on Statistical Data Analysis Using R Programming | Three-Day International Workshop on Statistical Data Analysis Using R Programming , | A2Z Edu-LearningHub | 15th 16th & 17th February 2022 |
| 2 | Miss. Kavita S. Dahake | One day seminar on INTELLECTUAL PROPERTY RIGHT | INTELLECTUAL PROPERTY RIGHT | K.C.E. Society's post Graduate College of Science, Technology and Research Jalgaon | 07th April 2022 |
| 3 | Miss. Pragati Neve | One day seminar on INTELLECTUAL PROPERTY RIGHT | INTELLECTUAL PROPERTY RIGHT | K.C.E. Society's post Graduate College of Science, Technology and Research, Jalgaon | 07th April 2022 |
| 4 | Miss. Kunjal Patil | One day seminar on INTELLECTUAL PROPERTY RIGHT | INTELLECTUAL PROPERTY RIGHT | K.C.E. Society's post Graduate College of Science, Technology and Research, Jalgaon | 07th April 2022 |

Achievement of Teachers:

| Sr. No. | Name of the Teacher | Department | Perticulars | Year |
|---------|---------------------|---------------|---------------------------|------|
| 1 | Mr. J. V. Khan | Biotechnology | Qualified SET Examination | 2021 |
| 2 | Dr. Snehal Deshmukh | Biotechnology | Ph. D. | 2022 |

Placement Record of the batch 2020-21

| Dept | Name of the Student | Company/Firm |
|--------------|--|---|
| MICROBIOLOGY | Pravin Himmat Patil Vaishnavi Anil Dhake Pankaj Magan Parmar Ashvin Sandipan Nagare Yogesh Patil | MacLeod pharmaceuticals phase daman Biorad Medisys Private Limited, Pune HLL lab dhadgaon Wockhardt pharmaceutical TCS Nandurbar |
| CHEMISTRY | Lalit Arun Khairnar. Gopal Atmaram Patil. Yogesh Dnyaneshwar Ahire Kaushik Pandurang Patil. | Exemed Pharmaceutical Ltd., Vapi. QC department. Curia India Pvt. Ltd., IPQA Department Waluj, Aurangabad. Curia India Pvt. Ltd., IPQA Department Waluj, Aurangabad. Bajaj Allianz, Jalgaon |
| STATISTICS | Roma Kriplani Dipika Mangalsing Ingale Dhanshree Patil Ankita Chavan | CEO, Shivdhara Institute, Akola (Entrepreneur) Sarthak Infotech Privated Limited Infosys Privated Limited Clin Choice Bangalore |

Teaching Staff

| Sr. . | Name of Employee | Qualification | Designation | Department |
|-------|----------------------------|--------------------|---------------------|---------------|
| 1 | Dr. V. S. Zope | M.Sc., Ph. D | Principal | Principal |
| 2 | Dr. Ravindra Maharu Patil | M.Sc., Ph. D., NET | Head and Asst.Prof. | Chemistry |
| 3 | Prof. Rupali. A.Chaudhari | M.Sc. | Asst. Prof. | Chemistry |
| 4 | Prof. Shalini M. Chaudhari | M.Sc., B. Ed | Asst. Prof. | Chemistry |
| 5 | Prof. Mansi Joshi | M.Sc. | Asst. Prof. | Chemistry |
| 6 | Prof. Sayyed Zarrin J. | M.Sc. | Asst. Prof. | Chemistry |
| 7 | Prof. J. V. Khan Maniyar | M.Sc., NET | Head and Asst. Prof | Biotechnology |
| 8 | Dr. Sarang S. Bari | M.Sc., Ph. D | Asst. Prof. | Biotechnology |
| 9 | Dr. Snehal Deshmukh | M.Sc., Ph. D | Asst. Prof. | Biotechnology |
| 10 | Prof. Sandip Narayan Patil | M.Sc., NET | Head , IQAC Coord. | Microbiology |
| 11 | Prof. Dhanshree R. Patil | M.Sc. | Asst. Prof. | Microbiology |
| 12 | Prof. Vaishali Punekar | M.Sc. | Asst. Prof. | Microbiology |
| 13 | Prof. Kavita Dahake | M.Sc. | Asst. Prof. | Statistics |
| 14 | Prof. Kunjal Patil | M.Sc. | Asst. Prof. | Statistics |
| 15 | Prof. Pragati S. Neve | M.Sc. | Asst. Prof. | Statistics |
| 16 | Prof. Nhavi Dnyaneshwar R. | M.Sc., SET | Head & Asst. Prof. | Mathematics |
| 17 | Prof. Neha A. Mahajan | M.Sc. | Asst. Prof. | Mathematics |
| 18 | Prof. Pooja Mahajan | M. Com | Asst. Prof. | Commerce |
| 19 | Prof. Nilesh Chaudhari | M. A., NET | Asst. Prof. | Commerce |
| 20 | Prof. Kiran Bari | M.Com, NET | Asst. Prof. | Commerce |
| 21 | Prof. Pratibha Tiwari | M. Com, SET | Asst. Prof. | Commerce |

Non Teaching Staff:

| Sr. No. | Name | Designation |
|---------|-------------------------------|-----------------|
| 1 | Mr. Ulhas Sudhakar Patil | Asst. Librarian |
| 2 | Mr. Shailendra S. Narkhede | Clerk |
| 3 | Miss. Pooja Mahajan | Accountant |
| 4 | Mr. Ganesh Dilip Mali | Lab Attendant |
| 5 | Mr. Kamlesh Ramgir Gosavi | Lab Attendant |
| 6 | Mr. Digamber Vinayak Khachane | Lab Attendant |



Prof. S. N. Bharambe, Dr. V. S. Zope, Prof. J. N. Chaudhari Prof. D. R. Nhavi and Dr. Chetan Chaudhari on the occasion of National Mathematics Day



Poster presentation organized by Dept. of Microbiology Prof. S. N. Patil, Dr. V. S. Zope, and Prof. Sagalie Rajesh



Hon'ble Mrs. N. G. Bendale President, KCE Society addressed to the faculty on Induction Training workshop.



Hon'ble Mr. D. T. Patil and Dr. R. S. Patil awarding prizes to the students at prize distribution ceremony of PRRS.



Yoga ; For health of women on the occasion of Women's day



Rangoli Competition. Judge: Dr. Mrs Jayashri Bhirud



Release of Compendium of PRS at the auspicious hands of Hon'ble Mr. D T Patil and Prof. R. S Patil, Principal, Shahada College.



Induction Training workshop In presence of Hon'ble Mrs. N. G. Bendale President, KCE society



Health Check up of the students



Workshop on Intellectual Property Rights



Celebration of National Science Day



Workshop on Soft Skill by NPTEL



Soft Skill: C. V. Writing



Send off to Prof. J. V. Khan



Practical Sessions on Yoga



Practical Sessions on Yoga



Sports



Sports



Team of the student participated in Yuvarang



Yuvarang 2021-22 (Folk Dance)



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- contact Person: **Shailendra Narkhede, Mob. No. 8600344013**

M.Sc, M.Com and M.A.

| | |
|-------------------------------|----------------------------------|
| BIOTECHNOLOGY : 30 | Statistics : 30 |
| MICROBIOLOGY : 30 | Analytical Chemistry : 30 |
| ORGANIC CHEMISTRY : 30 | M.A in Psychology : 60 |
| Mathematics : 30 | M. Com. : 60 |

For Any Further information contact the Faculty Members

- Chemistry - **Dr. R. M. Patil-7028164995** • Microbiology - **Prof. Sandip N. Patil-8806680979**
- Biotechnology - **Dr. Sarang S. Bari-8999591662** • Mathematics - **Prof. D. R. Nhani-9881776290**
- Commerce - **Prof. Shubhangi Mahale-8261837965**

"Apart from education, Skills Development, Research, Value Education and Placement is our prime focus". - **Nandkumar Bendale**, President, K. C. E. Society.

Dr. V. S. Zope, Principal, PGCSTR, Jalgaon.



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 Principal,
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 Website: <https://pgcollege.kces.in>

A beautiful saying of Nelson Mandela that, "Youth of today are leaders of tomorrow" is true and applicable in each and every aspect, therefore the power and potential of youth must be fully utilized by providing them with sufficient opportunities. The youth must be directed in a positive direction to get success in all these spheres. The focus on the development and training for youth must be taken into account. There is a need for proper education and skill development of the youth so that they can prosper in the right direction.

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