

Annual Report 2020-21

Research Development Cell

Composition of the committee:

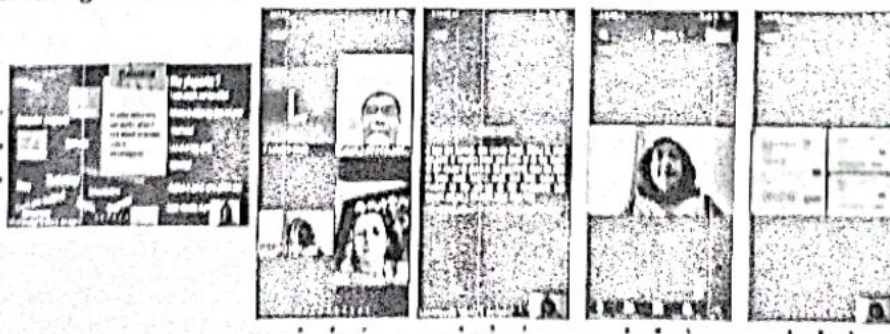
1. Dr. Shashibhal Pandey, VP, Science, Overall In-charge RDC
2. Dr. Darshana Patil, Chairperson
3. Dr. Kajal Bhojwani, Co-Chairperson
4. Dr. Laksmi Girish, Member
5. Dr. Ashish Jain, Member
6. Dr. Kishori Tarfe, Member

Objectives-

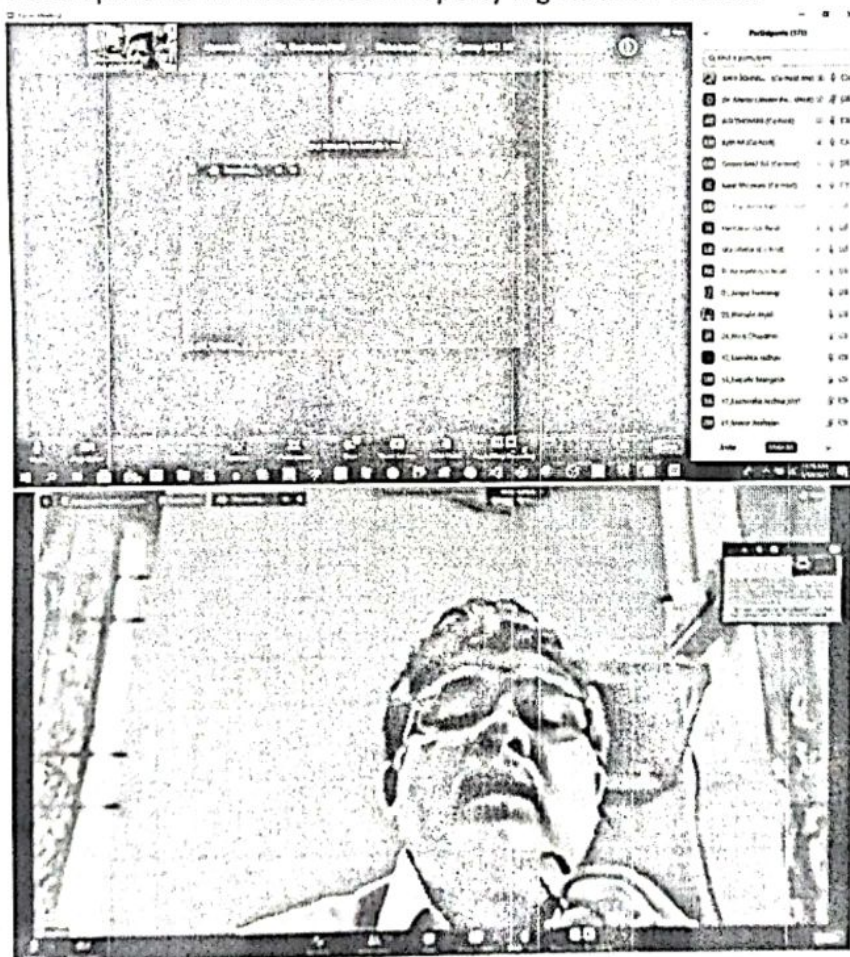
- ✓ To organise research promoting events to encourage, motivate and to assist students and Faculty.
- ✓ To develop research culture among students and Faculty.
- ✓ To promote healthy research environment in the college.

Following are the various activities conducted by RDC for the year 2020-2021.

1. An online State Level Seminar on "Research Ethics and Best Practices" was organised on 30th January, 2021. The seminar was organised to make participants (UG, PG, PhD students and Teachers) aware of ethical problems in research, need of quality research outcomes and how to publish quality research publication avoiding plagiarism. 263 participants attended the seminar. The resource person for the program was Dr. Moltreyee Saha, Head, Department of Botany, VPM's B. N. Bandodakar College of science (Autonomous), Thane. Dr. Moltreyee Saha started her talk by giving an overview of research and research ethics – code of action. The different aspects of research ethics were explained by citing suitable examples in the form of case studies. A detailed account of plagiarism, different types plagiarism, consequences of plagiarism, how to avoid plagiarism etc. was explained citing various case studies. The participants learnt how to avoid plagiarism, fabricating, falsifying or misrepresenting research data and to promote truth and minimize erroring in research.

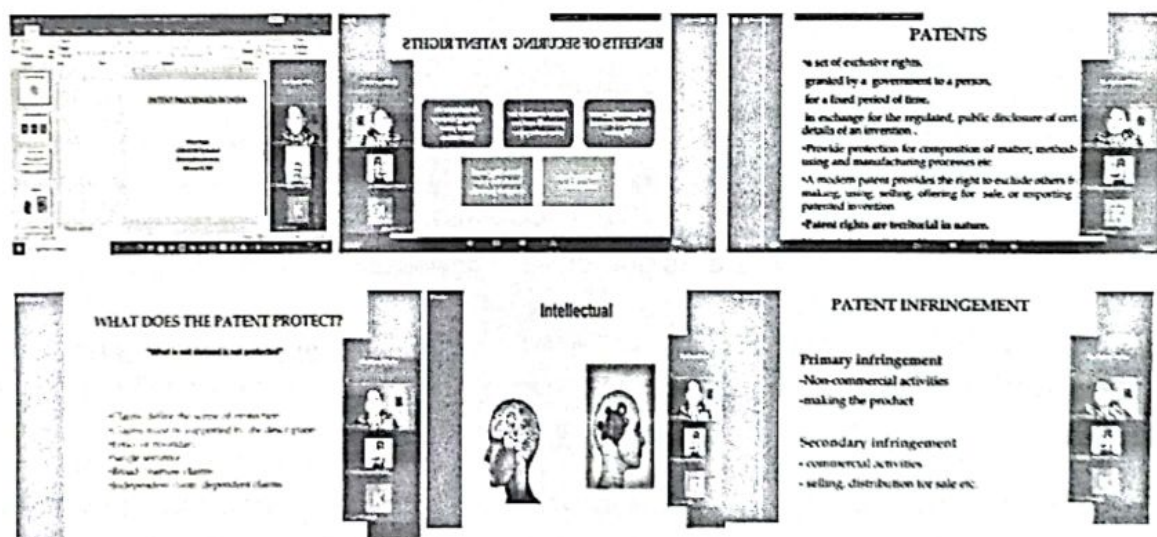


2. The Department of Information Technology organized a one-day national webinar on "Intellectual Property Rights" on May 30, 2021 jointly with the Department of Computer Science and Research Development Cell. The objective of the seminar was to create awareness on Intellectual Property Rights and Patents and also to develop academic research perspective among undergraduate students. The webinar received a very good response with a total of 200 student participants from various colleges. The resource person for the webinar was Mr. M Ajith who is the Deputy Controller of Patents and Designs, at Indian Patent Office, Govt of India, Ministry of Commerce and Industry, Chennai Branch. The major topics covered in the talk by Mr. Ajith were IPR Laws in India, Intellectual Property and Intellectual Property Rights, Trademarks; Traditional and Non-Traditional, Copyright Protection and guidelines for registration of Copyright and Patent: A prominent intellectual property right. the participants got an opportunity to get exposed to the latest trends and developments in Intellectual Property Rights and Patents.



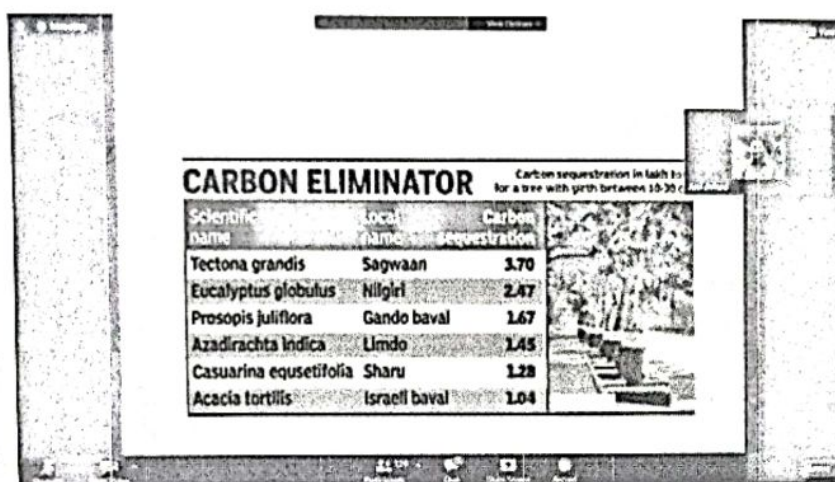
Mr. M. Ajith

3. An Online state Level Seminar on "Patent Procedures in India" was conducted by Research Development Cell of Smt. CHM College, Ulhasnagar on 13th February, 2021. The objective of the seminar was to make participants familiar with how to write patent application, processing of patent application and laws and regulations related to patents in India. 163 participants which included PG, Ph.D students and Faculty , attended the seminar. The resource person for the program was Dr. Divya Singh, Business Development and IP Officer, CSIR- CCMB, Hyderabad. The resource person started her talk by giving an overview of about what is patent, benefits of securing patent rights and patent infringement. The different aspects of patenting procedures were elaborated with suitable examples. The talk was proceeded by delineating various steps of the patenting procedure in India and gave more emphasis on patent grant in India. The Participants were made aware about the importance of Patenting their research work and Patent Filing process.



4. An Online Inter-Collegiate Seminar on 'Carbon Sequestration By Tree-Species: Case Studies' was organized on 27th February 2021. There were 130 participants (UG, PG, Ph.D students and Faculty) from various colleges participated in the program. The seminar was organized to provide scientific understanding of Carbon Sequestration and avenues available to carry out research in the field of Carbon Sequestration. Resource person for the seminar was Dr. Anil Avhad, Associate Professor, Ramniranjan Jhunjhunwala College, Ghatkopar. Sir started the session with climate change, reasons for climate change and potential impacts of climate change. Then he explained the need of reducing carbon footprints. He also explained significance of tress in controlling pollution. Sir also explained methodology of carbon sequestration citing examples of various trees which are carbon eliminator. Then there was detailed discussion on Carbon Sequestration of tree species along wetland of Kala Talao, Kalyan and Pantnagar, Ghatkopar. Sir emphasized on tree plantation and how

it can save nature. Participants understood the importance of Carbon Sequestration and were encouraged to do research in the field of Carbon Sequestration.

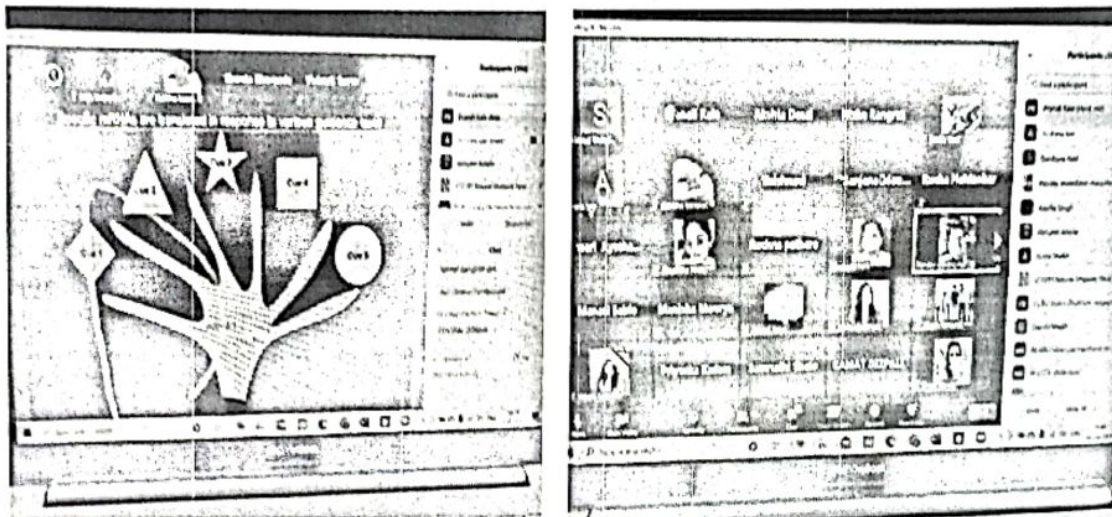


CARBON ELIMINATOR Carbon sequestration in lakh kg for a tree with girth between 10-20 cm

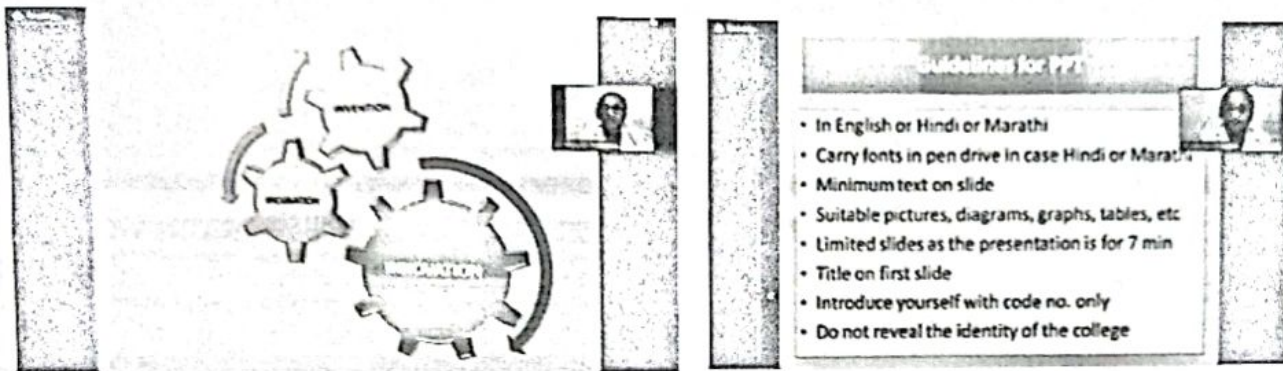
Scientific name	Local name	Carbon sequestration
<i>Tectona grandis</i>	Sagwaan	3.70
<i>Eucalyptus globulus</i>	Hillgiri	2.47
<i>Prosopis juliflora</i>	Gando baval	1.67
<i>Azadirachta indica</i>	Limdo	1.45
<i>Casuarina equisetifolia</i>	Sharu	1.28
<i>Acacia tortilis</i>	Israeli baval	1.04

5. The Department of Psychology organized a workshop on 'EXCEL & SPSS' on May 30, 2021 jointly with the Dept. of Business Management, Alumni Committee and Research Development Cell. The objective of the workshop was to orient and sharpen the analytical skills of the students by exposing them to Excel and SPSS and to give hands-on practical session to students and enable them to design research, methods for data analysis, designing the problems and so on. About 60 students and teachers participated in the workshop. The resource person for the workshop was Ms. Manisha Pandey (Alumnus), Asst. Professor of Psychology, Joshi Bedekar College, Thane. Ms. Manisha Pandey took over the session by giving introduction about statistics and how we apply them in day-to-day life. She started with Microsoft Excel, the topics that were covered here was how to enable the data tab, how to easily calculate the descriptive as well as inferential statistics followed by correlation, regression with the help of data analysis option. In the latter half of the session she introduced SPSS to all the students and taught them how to arrange and fit the data along. Calculation of statistics with the help SPSS was also covered in this session. This workshop enabled students to analyse and interpret numerical data obtained through survey independently.
6. Online Intercollegiate Seminar On 'Glimpses of Neuroscience' was organized on 18th February 2021 in association with Student forum. The objective of the seminar was to create awareness and motivate participants for research and to develop leadership skills for management of scientific projects. Around 133 participants, including the students of various streams, teachers, committee members were present throughout the session. The resource person for the seminar was Dr. Archana Iyer, DST Inspire Faculty, TIFR, Mumbai, Maharashtra. While delivering the talk on Glimpses of Neurosciences, Dr. Archana Iyer touched upon various aspects such as types of model organism which can be used for the neuron studies and the

criteria for the selection of model organisms. She also explained in detail how immunofluorescence technique is used for the nerve signaling studies. While explaining the mechanism in detail, she mentioned about the role of mRNAs and micro RNAs in signaling process. She proceeded to explain the how she used *Xenopus leavis* as a model system for her PhD work. The talk increased scientific temperament of the students and to understand the importance of research. The participants, especially students got more information to the fascinating field of Neuroscience.



7. An Online inter-collegiate orientation program was organized on 'Avishkar Research Convention' on 5th February 2021. The orientation program was organized to motivate and guide the UG, PG and Research students for participation in the University Research convention Avishkar. There were 183 participants from various colleges participated in the program. Resource person was Dr. Vaishali Nirmalkar, Co-coordinator, Zone III, Avishkar, District- Thane. She explained in detail about the overall conduct of Avishkar research convention , various categories, levels, eligibility criteria, guidelines for poster preparation and power-point presentation. She also guided about how poster and power-point can be made effective. Her talk motivated UG, PG and Research students to participate in Avishkar, University Research Convention.



The Research and Development cell regularly provides information to the students and faculties and co-ordinates for the University level Research Programme "Avishkar" and encourages active participation of both teachers and students.

Various workshops and seminars on emerging issues is conducted in order to keep the faculties and the students abreast of the latest developments in various areas and the opportunities for conducting research into it.

The Research Development Cell also co-ordinates with various departments in organizing research related activities such as Research Methodology Workshops, Research paper/poster Competition, etc. in order to nurture Research culture in the institute.

The Cell regularly also Conducts seminars on Intellectual Property Rights and such relevant issues at State and National Level where notable speakers from their respective fields are invited to share their knowledge and expertise with faculties across the state/Country.

Dr. Darshana Patil,
Chairperson,
RDC (2021-2022)

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