### 6.3.3 Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year 2022-23

Sr. No.	Content	Page No.
1	Professional Development Training Programs organized by the ECS department.	1
2	Professional Development Training Programs organized by the Computer Engineering department.	3
3	Professional Development Training Programs organized by the AIDS Department.	4
4	Report on Seminar by Mathworks on 'MATLAB and Simulink for Interactive Teaching and Research', organized by the Mechanical Engineering department.	<u>5</u>
5	Report on Workshop on 'Research, Funding and IPR', organized by the Mechanical Engineering department.	9

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
FR. AGNEL ASHRAM, BANDRA (WEST)
DEPARTMENT OF ELECTRONICS AND COMPUTER SCIENCE



ORGANISES A TWO DAY

FACULTY DEVELOPMENT PROGRAM ON

# QUANTUM COMPUTING 18th-19th November, 2022

Patrons:

Fr. Valerian D'Souza (Local Superior & Director)

Dr. Surendra Singh Rathod (Principal)

Convener:

Dr. Sapna Prabhu, HOD (ECS Department)

Registration and a

reputing)

Program Coordinators:

Prof. Divali Koshti ( 9819151054)

Prof. Prajakta Bhangale (9833720466)

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Dates (from-to) (DD-MM-YYYY)	ent /administrative training programs organ  Title of the professional development program organised for teaching staff	Title of the administrative training program organised for non-teaching staff	No. of participation 22
.8 - 19 November 2022	Quantum Computing	-	
Note: Classify the data a	and provide during the year		

Computer Enga

y staff during the year 6.3.3 Number of professional development /admir

(DD 100)	Title of the professional	Title of the administrative training program organised for non-teaching staff	No. of participants
30 <sup>th</sup> September and 3 <sup>rd</sup> October, 2022	Two day FDP on NLP using Deep Learning		36
3 <sup>rd</sup> -4 <sup>th</sup> April, 2023	Two day FDP on Salesforce Fundamentals: An Introductor Training Program on SaaS	ту	100

Note: Classify the data and provide during the year

## AIDS

# Faculty Development Program organized by Department

Year: 2022-23

Sr. No	Topic for FDP	Duration	Co-ordinator's name
1	NLP and Deep	Sept 30 <sup>th</sup> and Oct	Prof. Sarika Davare
	Learning	3rd2022	Prof. Swati Ringe



#### Report of Seminar by Mathworks on 'MATLAB and Simulink for Interactive Teaching and Research

**Speaker** : Dr Pranav Lad

**Date of Event** :17/09/2022

**Duration** : 5 Hours

Organised by : IQAC and R&D Committee

**Total Number of Participants** 48

Venue : Seminar Hall

#### **Objective of Program**

Objective of the program was to create awareness about various modules available in MATLAB and Simulink which can be useful for the faculty members for interactive teaching and research.

#### **Contents of the Program**

The speaker for the session was Dr. Pranav Lad, Customer Success Engineer at MathWorks.

The morning session was intended for the faculty members from all branches covering AI and machine learning tools in MATLAB. Whereas, afternoon session was mainly dedicated Simulink and Simscape for mechanical and electronics engineering domain problems.

In the morning session, Dr. Pranav Lad provided an overview of data science, AI and machine learning and demonstrated exploratory factor analysis, curve fitting, classification and regression analysis using MATLAB. He also explained how the programs can be developed to collect real-time data from sensors using hardware supported for MATLAB. He also explained that LabJack can be an economic option for collecting the sensors data in the .dat files which can then be processed using MATLAB.

He also demonstrated a feature MATLAB Grader which allows the teachers to scale assessments and automatically grade MATLAB coding assignments in any learning environment. The tool can be used for formative assessment with automated feedback and summative assessments such as quizzes and exams.

In the afternoon session, Dr. Pranav demonstrated modelling of Spring-Mass-Damper System, electronic circuits, thermal and fluid systems using Simulink and Simscape. He demonstrated how Simscape enables rapid development of physical systems within Simulink environment. He explained how to develop physical component models using components available in the library and integrate with block diagrams and other modelling paradigms.



He also shared information about various self-paced courses made available by Mathworks which can be used to get acquainted with MATLAB, Simulink and Simscape. He also explained their Mathworks excellence in innovation portal which aids students to select their capstone projects based on real industrial problems.

The session was truly informative and interactive in nature. The participants asked various queries related to hardware support, matlab and Simulink features.

The program was successful in developing an understanding of various modules and add-on tool-boxes available with the latest version of MATLAB.

#### **Outcomes**

Participants were made aware of latest modules and add-on toolboxes provided by Mathworks to the users and got their queries specific to MATLAB, Simulink and Simscape resolved by Mathworks customer success engineer.

#### **Photographs of Event**

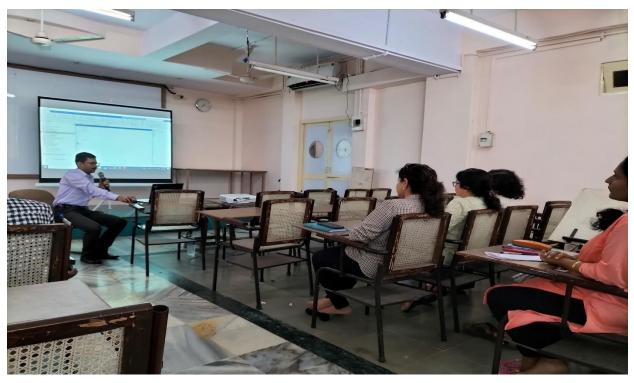


















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Research and Development Committee in association with IIC-FrCRCE organized one day workshop on RESEARCH, FUNDING AND IPR for the research scholars and faculty members.

Program Name : Faculty Workshop on Research, Funding and IPR

Date : 15th October 2022

**Venue** : Seminar Hall, 5<sup>th</sup> floor, CRCE Building.

Research and Development Committee (R&D) and Institution Innovation Council of Fr. CRCE (IIC-Fr.CRCE) organized a workshop on '*Research*, *Funding and IPR*' on 15th October 2022 from 10:00 am to 4.00 pm. The seminar was organized into two sessions: The morning session was conducted form 10.00 am to 1.00 pm and was organized in Seminar hall, 5th Floor. The morning session was on topics 'Research, funding and IPR'. The objective of the seminar was to inculcate and promote research culture in CRCE and also to mentor faculty members and research scholars of CRCE for research related activities such as report writing, publication, patent filing etc. The morning session was conducted by our Principal Dr. Surendra Singh Rathod and Head of the departments of CRCE: Dr. Sujata Deshmukh (HOD- Computer Engineering), Dr. Bhushan Patil (HOD- Mechanical Engineering), Dr. Sapna Prabhu (HOD- ECS) and Dr. Jagruti Save (HOD- AI&DS). The afternoon session was on '*Writing Reports and Research papers using LaTeX*' delivered by 'Dr. Promod P. Bhavarthe', HEAD and Associate Professor in Electronic and Telecommunication Department, Padmabhushan Vasantdada Patil Pratishthan's College of Engineering, Mumbai.

Around 47 faculty members and 9 research scholars participated in the seminar.





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Prof. Dipali Koshti (Assistant Professor in ECS), welcomed Principal, all HODs, Faculty members and Research scholars. She briefed about the objectives of the seminar to all participants. The first session was by Dr. Sujata Deshmukh on 'Research Funding'. She gave the information about various funding agencies where faculty and research scholars may apply for funding, discussed important points to be included in applications for research funding. The session was very informative and interactive.

The next session was delivered by Dr. Bhushan patil on 'Patents and IPR'. He explained various intellectual properties and guided all the participants through the process of patent filing. The session was very informative and participants took interest and asked many questions regarding patents and copyrights.

The following session was taken by Dr. Sapna Prabhu on 'Research Paper and Report writing'. She provided very crisp and important tips on how to write effective technical papers.

The next session was conducted by Dr. Jagruti Save on 'Ethics in Research'. She explained about fundamental ethical principles to research activities, respect towards society and others, the use of resources and research outputs, scientific misconduct and the regulation of research.



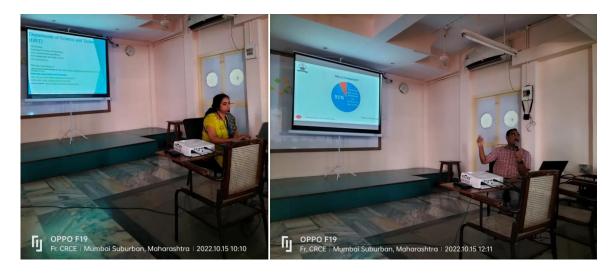
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The last session of the morning slot was conducted by our own Principal Dr. Surendra Singh Rathod on 'Review Process'. He explained the entire review process usually followed in all high quality Journals. He also explained how research papers are checked by various Authors, Editors, Reviewers, Types of Peer reviews, Article processing charges, etc. He also cleared doubts of many faculty and research scholars regarding selection of Journals, review process, peer review process etc.

The morning session was concluded by prof. Dipali Koshti. She thanked the speakers for sharing their knowledge and guiding the participants in the related domain. She also thanked all participants for actively participating in the seminar.





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The After session began at 1.30 pm. Dr. Ketaki Joshi introduced and welcomed Dr. Pramod P. Bhavarthe, Head and Associate Professor, Padmabhushan Vasantdada Patil Pratishthan's College of Engineering, Mumbai. Dr. Pramod completed his Ph.D. in Electronics and Telecommunication in 2018 from Sardar Patel college of Engineering. He has published many technical papers in IEEE transactions and reputed international Journals. He is also a reviewer for many IEEE Transaction and IET journals. He has also published patent and received many awards.

The session on "Writing Reports and Research papers using LaTeX' was specially organized for research scholars. The session was attended by 18 Research Scholars from CRCE and outside universities. Dr. Pramod begun the session with importance of writing and presenting the content in technical paper. He gave hands-on on how to use 'OverLeaf' online LaTeX editor to write technical paper, how to plot images using LaTeX and also demonstrated a sample manuscript using LaTeX. All the research scholars followed him and asked many questions regarding plotting 2D and 3D figures, selection of journals and many more questions. At the end Dr. Ketaki concluded the seminar by appreciating and Thanking Dr. Pramod Bhavarthe and all the participants.





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#### The outcome of the event:

All the participant got an overall idea about various schemes for research fundings, writing research technical research papers and filing the patents. Also, they learned the importance of research ethicsdos and don'ts. They understood behind the scene review process, peer review process, criteria for selecting papers etc. Knowledge of all these topics definitely will motivate faculty members and research scholars to apply for funds, patents and write quality research papers. The research scholars also got an insights into use of LaTex online editor for improving the quality of the paper and report in terms of presentation.

**Research and Development Committee** 

Fr. CRCE