

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)

RAAKCET/PRINCIPAL/CIR/FEB 2021

Date: 12.02.2021

CIRCULAR

I am pleased to inform you that our esteemed college is organizing a Faculty Development Program on "Data Analysis and Visualization for Research" will be held from 15.02.2021 to 19.02.2021. It is mandatory to attend the FDP to upgrade your knowledge and skills.

Dr. S. SEENUVASAMURTHI, M.E., P

RAAK College of Engineering & Technology, No.1, Muthupillai Palayam Road, Sulthanpet Post,

Puducherry - 605 110

Circulation to:

- 1. All Faculty and Staff Members
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SCHEDULE FOR FDP

DATA ANALYSIS AND VISUALIZATION FOR RESEARCH

15th Feb 2021 to 19th Feb 2021

Program Schedule:

S.No Date		Topic	Session	Speaker	Venue												
Day 1		Introduction to	I	Dr. Sivasankaran													
	1 15.02.202		п	Dr. Sivasankaran													
		Statistical Techniques for III Data Analysis		Dr. N. Sowri Raja Pillai													
Day 2		Data Cleaning and	· I	Dr. B. Senthil Nathan	CSE Dept. Computer												
	16.02.2021	Preprocessing	П	Dr. B. Scotliil Nathan	Lab I												
		Exploratory Data Analysis (EDA)	III	Dr. Sivasankaran	4												
Day 3 17.02.202		Data Analysis with Software Tools	I	Dr. Siver - karan													
	17.02.2021			17.02.2021		7.02.2021				.02.2021		7.02.2021		7.02.2021 II		Dr. Siyasankaran	
		Advanced Data Analysis Techniques	Ш	Dr. N. Sowi inja Pillai													
y 4	18.02.2021	Data Visualization	I	Mr. K. Marugan													



Dr. S. SEENUVASAMURTHI, M.E., Ph.C.



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		Principles	II	Mr.K. Murugan	
		Visualization Tools and Software	Ш	Dr. B.Senthil Nathan	CSE Dept
Day 5 19.02.2		Interpreting and Communicating	I	Dr. N. Sowri Raja Pillai	Computer Lab I
	19.02.2021	Data Insights	II	Dr. N. Sowri Raja Pillai	
		Big Data and Real- Time Data Analysis		Dr. B.Senthil Nathan	

Schedule of the Day : First Session : 09.00 AM - 11.00 AM; Tea Break : 11.00 AM - 11.15 AM

Second Session: 11.15 AM - 1.15 PM; Lunch Break: 1.15 PM - 2.00 PM; Third Session: 2.00 PM -

4.00 PM.

RTHI, M.E., Ph.C. Dr. S. SEENUVASAM PRINCIPAL RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road.

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FDP Report on Data Analysis and Visualization for Research

Institution Name

RAAK College of Engineering and Technology

Date of Event

15th Feb 2021 to 19th Feb2021

Event Category

Faculty Development Program

Topic

Data Analysis and Visualization for Research

Guest Name

Dr.Sivasankaran

• Dr. N. Sowri Raja Pillai

Dr. B.Senthil Nathan

Mr.K. Murugan

Brief Report:

Overview

The Faculty Development Program (FDP) on Data Analysis and Visualization for Research aimed to equip faculty members with essential skills and techniques for effective data analysis and visualization. In an era where data-driven decision-making is crucial, this program focused on practical applications and methodologies that enhance research capabilities. Participants engaged in hands-on workshops, interactive discussions, and case studies, learning how to analyze and communicate data insights effectively.

Objectives of the FDP

- 1. To enhance understanding of fundamental and advanced data analysis techniques.
- 2. To provide practical skills in data cleaning, preprocessing, and exploratory analysis.
- 3. To introduce effective data visualization principles and tools.
- 4. To promote the interpretation and communication of data insights in research contexts.

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Topics Discussed

- Introduction to Data Analysis: Provided an overview of data analysis concepts,
 emphasizing its importance in research. Discussed the data analysis lifecycle, including defining objectives, data collection, and interpretation of results.
- Statistical Techniques for Data Analysis: Covered fundamental statistical techniques, including descriptive statistics, inferential statistics, hypothesis testing, and regression analysis. Participants learned how to select appropriate statistical methods based on research questions.
- Data Cleaning and Preprocessing: Discussed the critical steps in data cleaning and preprocessing, including handling missing values, outliers, and data normalization.
 Emphasized best practices for ensuring data quality before analysis.
- Exploratory Data Analysis (EDA): Introduced EDA techniques to uncover patterns, trends, and anomalies in data sets. Participants learned to use graphical representations and summary statistics to explore data effectively.
- Data Analysis with Software Tools: Explored popular software tools for data analysis, such as R, Python, and SPSS. Participants engaged in practical exercises to apply analytical techniques using these tools, focusing on real research data sets.
- Advanced Data Analysis Techniques: Discussed advanced methodologies, including
 machine learning algorithms and time series analysis. Participants learned how to apply
 these techniques to extract deeper insights from complex data sets.
- Data Visualization Principles: Covered key principles of effective data visualization, including clarity, accuracy, and aesthetics. Discussed the importance of choosing appropriate visualization types based on the data and audience.

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- Visualization Tools and Software: Introduced various tools for data visualization, such
 as Tableau, Power BI, and Matplotlib. Participants learned how to create interactive and
 informative visualizations to communicate findings effectively.
- Interpreting and Communicating Data Insights: Focused on strategies for interpreting
 data results and communicating insights clearly to diverse audiences. Emphasized the
 importance of storytelling with data to enhance understanding and engagement.
- Big Data and Real-Time Data Analysis: Discussed the implications of big data in research and the tools available for real-time data analysis. Explored use cases in various fields, highlighting the importance of data handling in today's research environment.

Outcomes of the FDP

Participants reported significant improvements in their understanding of data analysis and visualization techniques. Faculty members expressed increased confidence in using statistical methods, data cleaning techniques, and visualization tools in their research projects. The program fostered collaboration among participants, encouraging the exchange of ideas and best practices for data-driven research. Additionally, discussions on big data and advanced analysis techniques highlighted the evolving landscape of research methodologies. Participants were excited to implement the skills learned to enhance their research capabilities and improve data communication in academic settings.

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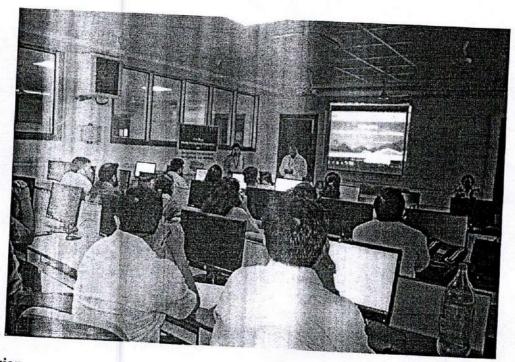
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Conclusion

The FDP on Data Analysis and Visualization for Research provided a valuable foundation for faculty at RAAK College of Engineering and Technology to advance their data analysis skills. It emphasized the critical role of effective data handling and visualization in research, setting the stage for future initiatives aimed at promoting data literacy within the academic community.

L. Piege COORDINATOR

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TOPICS: Data Analysis and Visualization for Research FACULTY DEVELOPMENT PROGRAM- ATTENDANCE

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PROGRAM COORDINATOR

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RAAKCET/PRINCIPAL/CIR/JULY 2020

Date: 01.07.2020

CIRCULAR

I am pleased to inform you that our esteemed college is organizing a Faculty Development Program on "Using Technology for Effective Teaching and Learning" will be held from 06.07.2020 to 10.7.2020.It is mandatory to attend the FDP to upgrade your knowledge and skills.

Dr. S. SEENUVASAMURTHI, M.E.,

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SCHEDULE FOR FDP

USING TECHNOLOGY FOR EFFECTIVE TEACHING AND LEARNING

06th July 2020 to 10th July 2020

Program Schedule:

S.No	Date	Topic	Session	Speaker	Venue
Day 1		Blended and Flipped Classroom Models	I	Mr. B. Murugan	
	06.07.2020	Models	II	Mr. Gunalan	
		Learning Management Systems (LMS)	III	Mr. B. Murugan	
Day 2	07.07.2020	Educational Technologies and			RAAKCET Seminar Hall
		Tools	II	Dr. Senthilnathan	
		Online Assessment and Evaluation	III	Mr. B. Murugan	
Day 3	08:07.2020	Creating and Using Multimedia	I	Mr. Gunalan	
		Content	II	Mr. Gunalan	



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		Interactive and Collaborative Learning	III	Mr. B. Murugan
		Gamification and Game-Based	I	Dr. Senthilnathan
Day 4	09.07.2020	Learning	П	Dr. Senthilnathan
17.		Data-Driven Decision Making in Education	Ш	Dr. N.Sowri Raja Pilla
		Virtual and	I	Dr. N.Sowri Raja Pillai
Day 5	10.07.2020	Augmented Reality in Education	П	Mr. B. Murugan
		Digital Literacy and Cyber security	III	Mr. B. Murugan

Schedule of the Day: First Session: 09.00 AM - 11.00 AM; Tea Break: 11.00 AM - 11.15 AM

Second Session: 11.15 AM - 1.15 PM; Lunch Break: 1.15 PM - 2.00 PM; Third Session: 2.00 PM -

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FDP Report on Using Technology for Effective Teaching and Learning

Institution Name

RAAK College of Engineering and Technology

Date of Event

06th July 2020 to 10th July 2020

Event Category

Faculty Development Program

Topic

Using Technology for Effective Teaching and Learning

Guest Name

Mr. Gunalan

Mr.B. Murugan

• Dr.Senthilnathan

Dr.N.Sowri Raja Pillai

Brief Report:

Overview

The Faculty Development Program (FDP) on Using Technology for Effective Teaching and Learning aimed to empower educators with innovative strategies and tools for enhancing the learning experience through technology. With the rapid evolution of educational technologies, this program focused on practical applications that facilitate engaging and effective teaching methodologies. Participants engaged in hands-on workshops, discussions, and demonstrations, exploring how technology can transform traditional educational practices.

Objectives of the FDP

- To enhance educators' understanding of various technological tools and their applications in teaching.
- 2. To provide practical skills for implementing blended and flipped classroom models.
- 3. To encourage the use of data-driven decision-making in educational practices.
- 4. To promote digital literacy and cyber security awareness among educators.

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Topics Discussed

- Blended and Flipped Classroom Models: Introduced the concepts of blended and
 flipped classrooms, highlighting the benefits of combining in-person and online learning.

 Discussed strategies for implementing these models effectively to foster student
 engagement and active learning.
- Learning Management Systems (LMS): Explored various LMS platforms, focusing on their features for course management, content delivery, and student tracking. Participants learned how to leverage LMS tools to enhance course organization and communication.
- Educational Technologies and Tools: Provided an overview of the latest educational
 technologies, including virtual classrooms, interactive whiteboards, and online
 collaboration tools. Discussed how to select appropriate technologies to meet diverse
 learning needs.
- Online Assessment and Evaluation: Covered best practices for conducting online
 assessments, including formative and summative evaluation methods. Discussed tools and
 techniques for creating effective assessments that align with learning objectives.
- Creating and Using Multimedia Content: Discussed techniques for designing and
 integrating multimedia content, such as videos, podcasts, and interactive presentations,
 into teaching materials. Emphasized the role of multimedia in enhancing student
 understanding and retention.
- Interactive and Collaborative Learning: Explored methods for fostering interactive and
 collaborative learning environments, including group projects, peer feedback, and
 discussion forums. Participants learned how to encourage student participation and
 collaboration through technology.

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- Gamification and Game-Based Learning: Introduced the principles of gamification and game-based learning, highlighting their potential to increase student motivation and engagement. Discussed examples of game mechanics that can be integrated into educational activities.
- Data-Driven Decision Making in Education: Discussed the importance of using data to
 inform teaching practices and improve student outcomes. Participants learned how to
 analyze student performance data and apply insights to enhance instructional strategies.
- Virtual and Augmented Reality in Education: Explored the applications of virtual and augmented reality technologies in the classroom. Discussed how these tools can create immersive learning experiences and facilitate hands-on learning in various subjects.
- Digital Literacy and cyber security: Addressed the critical need for digital literacy in
 education and the importance of cyber security awareness. Participants learned how to
 promote safe online practices among students and incorporate digital literacy skills into
 their curricula.

Outcomes of the FDP

Participants reported significant gains in their understanding of how to effectively integrate technology into teaching practices. Educators expressed increased confidence in using LMS platforms, creating multimedia content, and implementing blended and flipped classroom models. The program fostered collaboration among faculty members, encouraging the exchange of ideas and best practices in educational technology. Additionally, discussions on gamification and data-driven decision-making highlighted the potential for enhancing student engagement and improving learning outcomes. Participants were excited to apply the techniques learned to create more dynamic and interactive learning environments.



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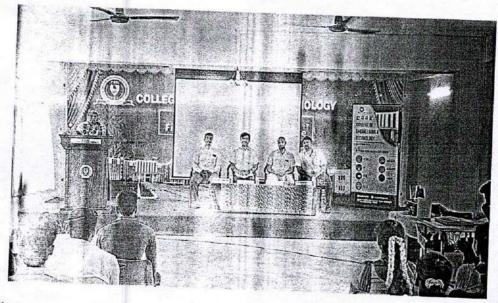
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Conclusion

The FDP on Using Technology for Effective Teaching and Learning represented a vital step in advancing the pedagogical skills of faculty at RAAK College of Engineering and Technology. It underscored the transformative power of technology in education and set the stage for future initiatives that will further enhance teaching effectiveness and student success through innovative technological integration.

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TOPIC: Using Technology for Effective Teaching and Learning FACULTY DEVELOPMENT PROGRAM- ATTENDANCE

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