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Report on Two Days Workshop on “Research Methodology”

May 26th and 27th – 2023

The Research Methodology Workshop was tailor-made to facilitate the academic requirements of the research scholar's student at the JSS Science and Technology University, Mysuru. The two-days trans-disciplinary workshop was conceptualized with the intention of knowledge-building on the fundamentals of research concepts, methodologies, review of literature, publication ethic, research design, hypothesis and processes in addition to providing hands-on training in IPR, plagiarism, synopsis/thesis writing with inputs on the essentials of academic writing.

The objectives of the workshop were:

- ❖ To develop knowledge on the fundamentals of research.
- ❖ To build knowledge on research design, application & data analysis.
- ❖ To develop skills for synopsis/thesis development & academic writing.

Workshop Convener:

Dr V N Manjunath Aradhya,

Professor and Associate Dean Research,
Department of Computer Applications,

The workshop was scheduled on **26-05-2023 to 27-05-2023** offline-mode at CMS Seminar Hall, JSS Science and Technology University, Mysuru. There were around 56 number of participants from various department and industry for smooth conduction of the workshop.

The Inauguration was held on 26-05-2023 at 09:30 am by welcoming the resource person **Dr. Sudharshan K M**, Professor & Director, REVA University, Bengaluru. Followed by a few words about workshop from **Dr V N Manjunath Aradhya**, Professor and Associate Dean Research, Department of Computer Applications, JSS Science and Technology University, Mysuru.

Day One: 26-05-2023, Friday

Session 1: Introduction of Research (10:00am-11:30am)

The first session was by **Dr. Sudharshan K M**, Professor & Director, dept. of ECE, REVA University, Bengaluru who spoke on the Importance, Concept and Types of Research. He said that Research is a process to discover new knowledge to find answers to a question. The word research has two parts re (again) and search (find) which denote that we are taking up an activity to look into an aspect once again or we want to look for some new information about something.

He also mentioned that Exploratory, Descriptive and Explanatory are the three main purposes of Research. Apart from this. He explained that the Research can be classified into Fundamental and decisional Research on the basis of Application, Descriptive and co-relational on the basis of Objectives, Structural and unstructured on the basis of inquiry mode, and Analytical, Fundamental, Qualitative, Quantitative, Empirical Research are other Researches.

Session 2: Defining the Research Problem and Review of Literature (11:45am-1:30pm)

The second Session by **Dr. Prashanth Joshi**, Professor, REVA University, Bengaluru explained how to identify and define Research Problems. He said a research problem is a definite or clear expression [statement] about an area of concern, a condition to be improved upon, a difficulty to be eliminated, or a troubling question that exists in scholarly literature, in theory, or within existing practice that points to a need for meaningful understanding and deliberate investigation. The researcher should undertake extensive literature survey connected with the problem. For this purpose, the abstracting and indexing journals and published or unpublished bibliographies are the first place to go to. Academic journals, conference proceedings, government reports, books etc., must be tapped depending on the nature of the problem

Also highlighted some of useful websites for research scholars:

- Research gate
- ORCID
- UGC – INFONET DLC
- N- LIST program
- Shodhganga
- DOAJ
- Legal Book 500.com

Session 3: Plagiarism (2:00pm-3:30pm)

The second Session by **Dr Srinivas Naik**, Professor, UBIT, Davanagere. He describes the rightness or wrongness of plagiarism. Plagiarism is an act of stealing, because another person's work is taken without permission and without giving the original writer due credit. It is fraud because the plagiarist is misrepresenting who created the work. He was major concern in many parts of society outside of the classroom. Novelists, journalists, scientists and researchers, business people, and politicians are all susceptible to plagiarism, and the consequences can be harmful if they do plagiarize. Proper citation in news articles, research studies, or reports intended to inform business and legislation allows people to confirm the information they receive, helping them avoid incorrect or ineffective decisions. He also highlighted the some of tricks to overcome from plagiarism.

Source: - Merriam-Webster Online Dictionary, Plagiarism.org

- DeepAI
- Toolbaz.com/writer/ai-paper-writer
- Quillbot.com
- Hoodern.com/free-deepfate-generator

Session 4: Testing of Hypothesis (3:45pm-5:15pm)

The fourth Session by **Dr. P Nagesh**, Professor and Dean Management, JSSSTU. Before moving to Hypothesis he was focusing on the different types of sampling techniques that the researchers can adopt from random sampling to non-random sampling methods. He was able to convey the participants on the methods by which adequate number of samples can be identified for a particular type of research. He said a sample design is a definite plan for obtaining a sample from a given population. He also explained the various steps in sampling design like, Universe type, Sampling unit, Source List, Size of Sample, Parameters of Interest, Budgetary Constraint and Sampling Procedure.

This session was mainly focused on:

- Sampling Unit v/s Population
- Concept v/s Construct
- Types of Hypothesis and errors

Day Two: 27-05-2023, Saturday

Session 5: Publication Ethics (9:00am-10:30am)

The session was started by **Dr. C Naveena**, Professor, SJBIT, Bengaluru. He spoke about - What is ethical conduct of research? He started explaining set of principles that distinguish between acceptable and unacceptable behavior and way of conducting a task. These guidelines or principles may vary across countries, disciplines, institutions, and even laboratories. He mainly focused on Falsification, Fabrication, Fraud, Morality, and Publication Ethics.

Session 6: Measurement and Scaling (10:30am-12:00pm)

The session was started by **Dr S Manjunath**, Lead Manager, Samsung. He spoke in detail about measurement and scaling with technical and real- time examples. Social issues may provide a broader prospect but it may not suggest a specific one. E.g., understanding economic background of society. The availability of resources like money, time, manpower, etc. also affects the selection of research problem. He came cross types, levels, statistics, sources of scaling error, test of sound measurement, test of reliability, test of practical, importance and scale construction techniques.

Session 7: Research Design (12:15pm-01:30pm)

The session was started by **Dr H T Basavaraju**, University of Mysore. He deliver the importance of design/blueprint and plan in research .The task of data collection begins after a research problem has been defined and research design/ plan chalked out. Research design is a blueprint of a scientific study. It includes research methodologies, tools, and techniques to conduct the research. It helps to identify and address the problem that may rise during the process of research and analysis. He delivered in details about types of design, characteristics, features, phases, elements, survey, need and nature of research design using mango detection case study.

Session 8: IPR (2:00pm-03:30pm)

The session was started by **Mr. Praveen Kumar**, BMSIT, Bengaluru. He explained that a patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. Furthermore, he said that one of the major functions of the patent system is the dissemination of technical information. Patent information is a valuable and comprehensive source of technical, commercial and legal information that can be used directly for scientific and experimental purposes and as a basis for stimulating the adaptation and improvement of the technology described in patent documents immediately after their publication. He said that intellectual property rights help protect creations of the mind that include inventions, literary or artistic work, images, symbols, etc. If you create a product, publish a book, or find a new drug, intellectual property rights ensure that you benefit from your work. These rights protect your creation or work from unfair use by others.

Session 9: Report Writing (3:45pm-05:30pm)

The session was started by **Dr. Keerthi Kumar**, Professor, MEC, Hassan. He outlined the difference between academic writing and general writing and provided his insights regarding the same. Thereafter, he identified several generic issues faced by writers and addressed them accordingly. Some of them are as follows – fixed mindset of not being able to write, lack of creativity, lack of vocabulary, inability to convey one's thoughts through sentences and uncertainty of where to begin the process of writing. He addressed these concerns by providing simple yet resourceful answers. Various types of academic writings were identified by him which are as follows – Essays, Research Papers, Thesis/Dissertations, Research Proposals and Literature Reviews. They were classified on the basis of word count, formality and requirements. The workshop proceeded to its next topic of discussion, namely, common errors made by writers. Informal language, improper use of words/synonyms, punctuation, lengthy sentences/paragraphs, tense usage, plagiarism of texts, consistency and typos were identified to be the most common mistakes of a writer and were discussed accordingly.

The workshop has concluded with discussion with participants and vote of thanks at 5.45 pm

Photos attachment of Workshop

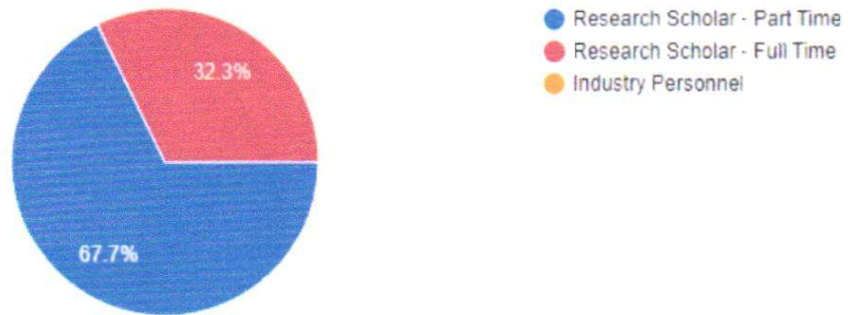


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Feed-Back of workshop was collected using Google Forms

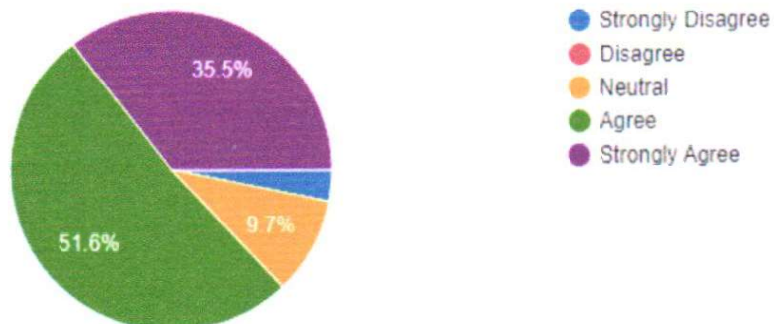
Designation

31 responses



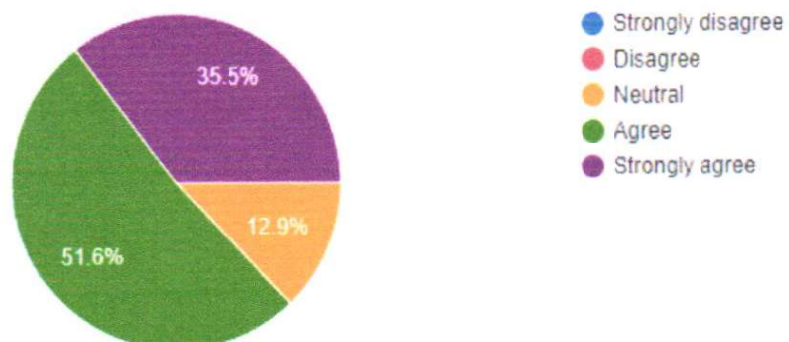
The objectives of the workshop was met to my satisfaction

31 responses



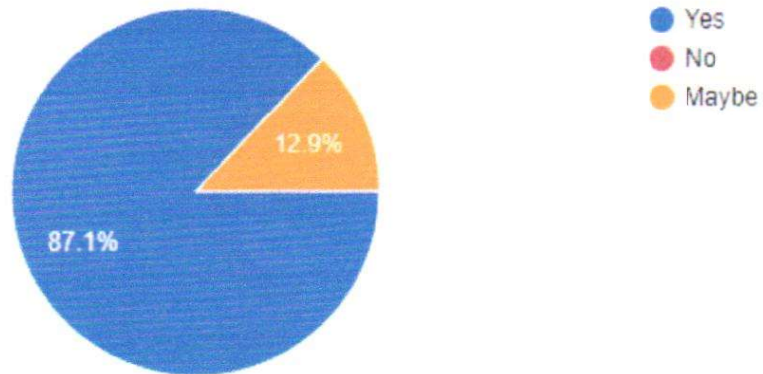
The topics presented were relevant to research

31 responses



I would be interested in attending a follow-up, more advanced workshop

31 responses




Dean (Research)
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A Brief Report on the Workshop on Research Methodology

JSSSTU in association and funding support of Karnataka Science and Technology Academy (KSTA), DST, GoK had organized a “Five Days Workshop on Research Methodology” from March 21-25, 2022 at JSSSTU, Mysuru. The major focus of the workshop was to provide an opportunity for the research scholars to learn the various aspects of the research process, framing useful research questions, research design, data collection, analysis, writing and plagiarism.



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The program was inaugurated by Dr. C G Betsurmth, Executive Secretary, JSSMVP on March 21, 2022 at 10.00 am. Rajyotsava Awardee Prof. H S Savithri Professor, Dept. of Biochemistry, IISc and Member, KSTA was the Chief Guest (Online) for the Program. Registrar Prof. S A Dhanaraj, Principal Prof. S B Kivade, Controller of Examination Prof. A N Santhosh Kumar, Prof. P. Nagesh, Dean, Management and



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Dr. H Honne Gowda, Dean (Research) were present in the inauguration. About 75 participants had attended the workshop.

The following distinguished speakers gave presentations covering various aspects of the research methodology from March 21- 25, 2022:

Session	Time	Topics	Resource Person
Day 1 : 21-03-2022 (Monday)			
	9.30 am- 10.15 am	Registration	
	10.15 am 11.30 am	Inauguration	
Tea Break 11:30 am 12:00 noon			
Session - I	12.00 noon -1.30 pm	Introduction to Research	Dr. Uttam Kumar Assistant Professor IIITB, Bengaluru
Lunch Break: 1:30 pm - 2:30 pm			
Session - II	2.30 p m - 4:00pm	Defining the Research Problem	Dr. Uttam Kumar Assistant Professor IIITB, Bengaluru
Session - III	4:00 pm- 5:30 pm	Review of Literature	Dr. Sunil M.V. Librarian, SDMIMD, Mysuru
Day 2 : 22-03-2022 (Tuesday)			
Session - I	10:00 am -11:30 am	Literature Review & Software usages	Dr. Sunil M.V. Librarian, SDMIMD, ysuru
Tea Break: 11:30 am - 11:45 am			
Session - II	11:45 am -1:15 pm	Research Design	Dr. Preeti Patil Assistant Professor Visvesvaraya Technological University, Mysuru
Lunch Break: 1:15 pm - 2.15:00 pm			
Session - III	2.15 pm -3.45pm	Research Process	Dr. P Nagesh Dean Management JSSSTU
Tea Break: 3:45 pm - 4.00 pm			
Session - IV	4.00 pm- 5.30 pm	Experimental Design	Dr. Mahananda, Head, ISE, JSSSTU
Day 3 : 23-03-2020 (Wednesday)			

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Session - I	10:00 am – 11:30 am	Data Collection and Management	Dr. B S. Harish Professor, ISE
Tea Break: 11:30 am – 11:45 am			
Session - II	11:45 am – 1:15 pm	Contemporary/Emerging Research Trends	Dr. Gopalan Jagadeesh, Professor Aerodynamics, IISc
Lunch Break: 1:15 pm - 2:15 pm			
Session- III	2.15 pm-3.45 pm	How to Write Research Article and Publish the Research	Dr. Gopalan Jagadeesh, Professor Aerodynamics, IISc
Tea Break: 3.45 pm – 4.00 pm			
Session- IV	4.00 pm-5.30 pm	Design of Sample Survey/Methods	Dr. B.S. Biradar, Professor, UOM
Day 4 : 24-03-2022 (Thursday)			
Session - I	10:00 am – 11:30 am	Testing of Hypothesis	Dr. P Nagesh, Dean, Management JSSSTU
Tea Break: 11:30 am – 11:45 am			
Session - II	11.45 am-1.15 pm	Data Analysis	Dr. P Nagesh, Dean, Management JSSSTU
Lunch Break: 1.15 pm – 2.15 pm			
Session- III	2.15 pm-3.45 pm	Measurement & Scaling	Dr. Praveen Kumar, Associate Professor, JSSCMS
Tea Break: 3.45 pm – 4.00 pm			
Session- IV	4.00 pm-5.30 pm	Software Usages for Data Analysis	Dr. David Maxim Gururaj Vellore Institute of Technology, Chennai (Online)
Day 5 : 25-03-2022 (Friday)			
Session - I	10:00 am – 11:30 am	Research Ethics, IPR & Plagiarism	Dr. Debnath Pal Professor, IISc (Online)
Tea Break: 11:30 am – 11:45 am			
Session - II	11.45 am – 1.15 pm	Research Report & Presentation	Dr. Aisha Sharif, Professor, UOM
Lunch Break: 1-15 pm – 2.15 pm			



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Session- III	2.15 pm-4.15 pm	Group Presentation	Team Members Participants
Session- IV	4.15 pm – 4.30 pm	Valedictory & Distribution of Certificates	
Tea Break: 4:30 pm			

At the end of the program on 25th March 2022, presentations were organized on various themes of Research methodology by forming teams consisting of 4 to 5 members. Best of four teams were selected based on the recommendations of the expert committee.



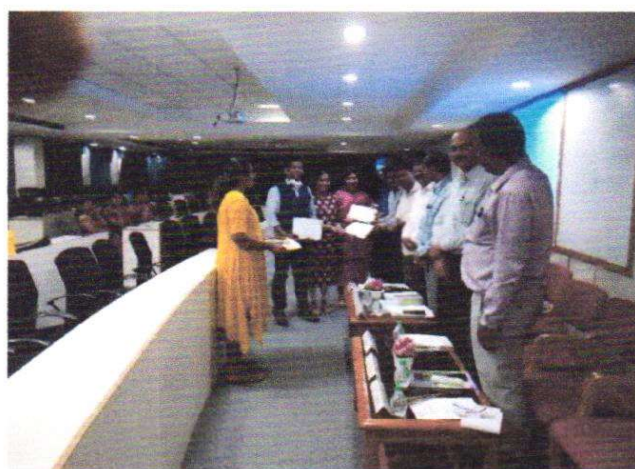
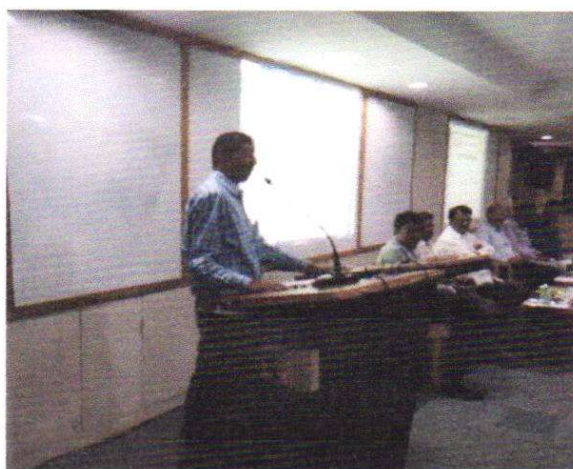
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The Valedictory program was organized at the end of the program on 25th at 4.30 pm. Dr. A M Ramesh, CEO, KSTA had participated in the program. All the Deans of JSSSTU (Prof. P Nagesh, Dean Management; Prof. P Mallu, Dean Science and Prof. Manoj Kumar, Dean, Academics). Dr. H Honne Gowda, Dean (Research) presided over the function. Participation certificates were given for all the participants and also appreciation certificates and memento were given to all the best four teams who



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were selected for the best presentations on the identified teams. The program was well appreciated by all the participants and gave an excellent feedback.



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A few photographs of the program, list of participants attended the program and a sample copy of the certificate and utilization certificate are enclosed for kind consideration of KSTA.

The sanctioned amount was fully utilized for the program. Although the program was sanctioned for three days, it was organized for 5 days in order to cover details on the research methodology. The excess expenditure was met by the University.

JSSSTU wish to thank Chairman, KSTA and CEO, KSTA for providing funding support in organization of the workshop.