

GOKARAJU RANGARAJU

INSTITUTE OF ENGINEERING AND TECHNOLOGY



(Autonomous)
Bachupally, Kukatpally, Hyderabad- 500090

Online AICTE Margdarshan FDP on

Art of Writing Papers and Research Methodologies

7th to 13th May 2020

SUMMARY REPORT

GRIET conducted one week Online AICTE Margdarshan FDP on Art of Writing Papers and Research Methodologies from 07-05-2020 to 13-05-2020 (6 days). Total there were 928 faculty participated across from various colleges from which 195 participants are from the 13 mentee institutions and 212 from GRIET. There were 12 sessions in total conducted focusing on effectiveness of research methodology, art of writing quality papers and projects, art of consultancy and innovation, research at industries, advanced nano finishing of 3d printed components, how to execute a funded project, writing a good abstract and conclusion, approach to conduct an effective literature review, why we should do research, technical writing, research & importance of digital learning and innovative teaching methods in engineering education.



DAY-1 (07-05-2020) SESSION-1

TOPIC: Effectiveness of Research Methodology

SPEAKER: Dr. T Suresh Kumar, Professor, GRIET Hyderabad

Speaker focused on acquiring knowledge on Research Process & Design, familiarize with Design Strategy and to understand Scientific approach for Research. Also discussed about top 10 qualities of a Researcher and Characteristics of Research

hypothesis. Research work should be precise and clear, capable of being put to test, relationship between the variables, in case relational hypothesis, must be amenable to testing within a reasonable period.

Speaker-1: Effectiveness of Research Methodology by Dr. T Suresh Kumar, Professor, GRIET Hyderabad	
Description	Feedback (4)
How satisfied were you with the session?	3.73
How related and helpful it was for you?	3.70
How satisfied are you with the session content?	3.71
Is the presentation of the speaker being in a clear and organized manner?	3.76



DAY-1 (07-05-2020) SESSION-2

TOPIC: Art of Writing Quality Papers and Projects

SPEAKER: Dr. Swadesh Kumar Singh, Ex-IES, Ph.D-IIT Delhi

Speaker discussed about **Steps for Writing a Research Paper to** Choose a topic, Define the work, Access the data, software etc., Literature, Finalize the paper statement and prepare a working outline, Prepare rough draft. Focused on

proposal that needs to show how your work fits into what is already known about the topic and what new paradigm will it add to the literature, while specifying the question that the research will answer, establishing its significance, and the implications of the answer. The proposal must be capable of convincing the evaluation committee about the credibility, achievability, practicality and reproducibility (repeatability) of the research design. Four categories of audience with different expectations may be present in the evaluation committees, namely academic colleagues, policy-makers, practitioners and lay audiences who evaluate the research proposal.

Speaker-2: Art of Writing Quality Papers and Projects by Dr. Swadesh Kumar Singh, Ex-IES, Ph.D-IIT Delhi	
Description	Feedback (4)
How satisfied were you with the session?	3.76
How related and helpful it was for you?	3.72
How satisfied are you with the session content?	3.74
Is the presentation of the speaker being in a clear and organized manner?	3.77



DAY-2 (08-05-2020) SESSION-3

TOPIC: Art of consultancy and innovation **SPEAKER:** Prof Anand Parey, IIT Indore

Speaker focused on consultancy, The Academic Consultant, Why Start a Consultancy, Benefits for the academic and the institution, Risks for academic staff, Risks for the

Institution, Types of Consultancy, Whether to run the project in an individual or University capacity? Private Consultancy, University Consultancy, Departments have guidelines on consultancy, and can offer support at a Departmental level to academics wishing to undertake consultancy. Always check with your Department before undertaking any consultancy work. Academics whose departments currently do not offer specific consultancy support should discuss the project with the Business Development team. All academics must adhere to the guidelines and procedures for declaration of interests and avoiding conflicts Costing is a technical issue, pricing, i.e. the amount charged to the client, is a decision made based on covering the costs as outlined above, and based on market value for the services provided. This is the profit charged for the work as opposed to the costs for undertaking the work.

Speaker-3: Art of consultancy and innovation by Prof Anand Parey, IIT Indore	
Description	Feedback (4)
How satisfied were you with the session?	3.65
How related and helpful it was for you?	3.56
How satisfied are you with the session content?	3.58
Is the presentation of the speaker being in a clear and organized manner?	3.66



DAY-2 (08-05-2020) SESSION-4

TOPIC: Research at Aerospace Industries

SPEAKER: Prof. Hari Adavalli Head & Technical Chief, Cyient Ltd.

Speaker discussed about integrated product development process which are ideation, concept development, preliminary design, detail design development,

verification, validation, delivery, service and support.

Speaker-4: Research at Aerospace Industries by Prof. Hari Adavalli Head & Technical Chief, Cyient Ltd.	
Description	Feedback (4)
How satisfied were you with the session?	3.60
How related and helpful it was for you?	3.49
How satisfied are you with the session content?	3.54
Is the presentation of the speaker being in a clear and organized manner?	3.60



DAY-3 (09-05-2020) SESSION-5

TOPIC: Research in Advanced Nano Finishing of 3D Printed Components

SPEAKER: Prof Ravi Sankar, IIT Tirupati

Speaker explained about Research in Advanced Nano Finishing of 3D Printed Components where in abrasive flow nano finishing process, its components, experimental set up, fixtures, medium, low viscous medium, high viscous medium, etc.

Speaker-5: Research in Advanced Nano Finishing of 3D Printed Components by Prof Ravi Sankar, IIT	
Tirupati	
Description	Feedback (4)
How satisfied were you with the session?	3.61
How related and helpful it was for you?	3.40
How satisfied are you with the session content?	3.55
Is the presentation of the speaker being in a clear and organized manner?	3.70



DAY-3 (09-05-2020) SESSION-6

TOPIC: How to execute a funded project

SPEAKER: Prof. Amit Kumar Gupta, BITS Hyderabad

Speaker focused on Successful execution of a funded project. Review of writing a good project proposal, Successful execution of a funding project, Hiring of manpower, Procurement of equipment and material, objective-by-objective, Utilization certificate & Yearly progress report, Yearly review process, Project closure. importance of components like

cover page, introduction, review of literature, aims and objectives, deliverables (multiple institutes), research design and methods, budget, plan of work & time schedule

Speaker-6: How to execute a funded project by Prof. Amit Kumar Gupta, BITS Hyderabad	
Description	Feedback (4)
How satisfied were you with the session?	3.72
How related and helpful it was for you?	3.63
How satisfied are you with the session content?	3.67
Is the presentation of the speaker being in a clear and organized manner?	3.73



DAY-4 (11-05-2020) SESSION-7

TOPIC: Writing a Good Abstract and Conclusion **SPEAKER:** Dr. B. Phanindra Babu, Professor, GRIET

Speaker discussed about guidelines to write the paper, what is an Abstract, Publisher View of Abstract,

Structure of Abstract,

Example of poor and good Abstract, Make your conclusions effective, to

Avoid mistakes in conclusions. To make conclusions Effective, Logic is Important and the conclusion is a perfect place to form a single clear opinion on your issue. If your paper contains some question that wasn't clearly answered throughout the paper, it must be answered in the conclusion.

Speaker-7: Writing a Good Abstract and Conclusion by Dr. B. Phanindra Babu, Professor, GRIET	
Description	Feedback (4)
How satisfied were you with the session?	3.81
How related and helpful it was for you?	3.77
How satisfied are you with the session content?	3.79
Is the presentation of the speaker being in a clear and organized manner?	3.81



DAY-4 (11-05-2020) SESSION-8

TOPIC: Approach to conduct an effective literature review

SPEAKER: Dr Nitin Kotkunde, BITS Hyderabad

Speaker outlined about introduction to literature review, systematic review process, check list for reading a paper, literature sources available, working with literature, structure & planning your writing mind maps, review biases, reviewing the literature, selecting keywords improving readership of your articles, how do I select material, paper/journal quality, cited reference

searching, verbs for referencing final checklist, keeping up-to-date, summary of literature writing, plagiarism in literature writing, guidelines to avoid plagiarism, recommend limit of similarity index, identify the research gap, other important points for an effective manuscript.

Speaker-8: Approach to conduct an effective literature review by Dr Nitin Kotkunde, BITS Hyderabad	
Description	Feedback (4)
How satisfied were you with the session?	3.84
How related and helpful it was for you?	3.82
How satisfied are you with the session content?	3.83
Is the presentation of the speaker being in a clear and organized manner?	3.83



DAY-5 (12-05-2020) SESSION-9

TOPIC: Why we should do Research

SPEAKER: Dr. A. K. Singh, DMRL, DRDO Hyderabad

Speaker focused on why research is important, tool for building knowledge, understand various technical issues, an aid to success, a way to prove write or wrong, optimize the existing results, means to find, gauge and opportunities, a seed to love reading, writing, analysing and sharing valuable information,

nourishment and exercise for the mind. There are gaps in knowledge, theories about how something might work better and ideas for improvement. Carefully organized and controlled research enables researchers to test and compare different theories and approaches, explore different methods and learn from other people's experience. A lot of studies, the findings can be recorded numerically and then statistically analysed in order to determine whether the findings are significant. The advantage to many qualitative studies is that they permit an in depth investigation into a particular aspect of human experience. They give people the opportunity to explain in their own words how they feel, what they think and how they make sense of the world they live in.

Speaker-9: Why we should do Research by Dr. A. K. Singh, DMRL, DRDO Hyderabad	
Description	Feedback (4)
How satisfied were you with the session?	3.77
How related and helpful it was for you?	3.74
How satisfied are you with the session content?	3.75
Is the presentation of the speaker being in a clear and organized manner?	3.76



DAY-5 (12-05-2020) SESSION-10

TOPIC: Technical Writing

SPEAKER: Dr. T. K. Nandy, DMRL DRDO Hyderabad

Speaker outlined about different type of writing, Different types of technical write ups, purpose, Technical Paper/Technical report, When to start. Results provides the details of various outcomes obtained after carrying out the required experiments / theoretical analyses. Discussion explains the results obtained in the study using the already existing

knowledge or new explanation. Writing Results and Discussion both together and separately are acceptable. Report consists of Title, Abstract, Introduction, Theoretical Formulation, Experimental Details, Results, Discussion, Concluding Remarks
Acknowledgements, References, Tables and Figures.

Speaker-10: Technical Writing by Dr. T. K. Nandy, DMRL DRDO Hyderabad	
Description	Feedback (4)
How satisfied were you with the session?	3.80
How related and helpful it was for you?	3.77
How satisfied are you with the session content?	3.75
Is the presentation of the speaker being in a clear and organized manner?	3.79



DAY-6 (13-05-2020) SESSION-11

TOPIC: Research & Importance of Digital Learning **SPEAKER:** Prof. Panitapu Bhramara, JNTU Hyderabad

Speaker focused on Digital Learning means learning using electronic media. Traditional teaching methods involve a teacher imparting knowledge to

students and everyone has direct contact with each other. Aspects and benefits of digital learning. The Enduring Foundations of Research are The electronic tools of communications and computing enhance both innovative and traditional practices in research. But they may favor the innovators, by making it easier to work across boundaries and to ignore the rules. The community of researchers will be forced to examine those boundaries, and rules increasingly as digital tools grow more powerful and pervasive. The community is certain to be strengthened by this radical review of its foundations.

Speaker-11: Research & Importance of Digital Learning by Prof. Panitapu Bhramara, JNTU Hyderabad	
Description	Feedback (4)
How satisfied were you with the session?	3.80
How related and helpful it was for you?	3.78
How satisfied are you with the session content?	3.80
Is the presentation of the speaker being in a clear and organized manner?	3.80



DAY-6 (13-05-2020) SESSION-12

TOPIC: Innovative Teaching methods in Engineering Education

SPEAKER: Dr. J. Praveen, Principal, GRIET

Speaker discussed about NBA Graduate Attributes, OBE, Teaching methods, flipped class room, peer learning, TPS, case based learning, experimental learning, project based learning, MOOCS, technological pedagogy, LMS, software, interactive presentation, rubrics, simulation tools, emerging areas and disruptive technologies.

Speaker-12: Innovative Teaching methods in Engineering Education by Dr. J. Praveen, Principal, GRIET	
Description	Feedback (4)
How satisfied were you with the session?	3.86
How related and helpful it was for you?	3.85
How satisfied are you with the session content?	3.85
Is the presentation of the speaker being in a clear and organized manner?	3.85





