Report of a Workshop on Research Methodology in Applied Sciences

Department of Physics of Alva's Institute of Engineering and Technology has organized a Workshop on Research Methodology in Applied Sciences RMAS-2018 during November 23-24, 2018. Dr. Jayarama A. was the coordinator of the workshop and Dr. Shashikumar was the sub-coordinator of the workshop. 38 participants from the various disciplines of applied sciences were the present during this workshop and many of the participants were research scholars. All the sessions were systematically arranged keeping in mind the need of the research scholars. The sessions were as follows:

Dr. Ramaprasad, Head physics dept. welcomed the participants and gave an introductory speech as well as introduced Dr. Vyasa Upadyaya, MIT Manipal was the resource person of day I: Research culture and how to write journal papers. Dr. Ramaprasad A.T, Department of Physics of Alva's Institute of Engineering and Technology felicitated Dr. Vyasa Upadyaya with a buckeye.

Day I: A series of lecture on Qualitative Research was taken by Dr. Vyasa Upadyaya. Sir started his session with the meaning of research which means to describe, explore and explain. Sir also talked about paradigm, worldview and shared understanding of reality. He also discussed the difference between quantitative and qualitative. He explained the sampling techniques of qualitative method- purposive and theoretical. He talked about the types of qualitative research – grounded theory design, narrative research, ethnography, ethnomethodology, phenomenological research and case study.

Day II: Research Hypothesis which was taken by Dr. Rajesh Rai, AJIET. The entire session was filled with simple and beautiful examples which were easily understandable by the participants. Sir began with the meaning of hypothesis which means an intelligent guess or prediction that gives a direction to the researcher to answer his research question. He also talked about the contribution of hypothesis in the research study i.e. it gives clarity to the research problem, describes explains and predicts the expected results or outcomes, indicates the types of research, describe research design, identifies the population of the study, facilitates data collection, data analysis and data interpretation. He also explained types of hypothesis – research hypothesis, null hypothesis and testable hypothesis. He also discussed the types of variables- independent, dependent, demographic, extraneous and environmental.

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