

KL UNIVERSITY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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| DATE | : 25-07-2017 |
| TIME | : 2:00 P.M to 3:00PM |
| EVENT | : Staff Colloquium |
| SPEAKER NAME | : Dr. Jithendra Kumar Pati |
| RESEARCH GROUP | : Mathematics |
| TOPIC TITLE | : “Applications of fractional order systems to Electrical power systems” |
| VENUE | : F105, K L University |
| FACULTY INCHARGE | : G.Mamatha |

EVENT DESCRIPTION:

“**Staff Colloquium**” is an activity organized by, Dept. Of E.E.E of KL University on 25-07-2017 from 2:00 P.M to 3:00 P.M. The Seminar is given by Dr.Jithendra Kumar Pati, Associate Professor, Department of Mathematics, KL-University. The topic of the Seminar is “Applications of fractional order systems to Electrical power systems”. In order to contribute to the Power systems Research group mission, Seminar is organized in EEE Department to bring awareness among the faculty, E.E.E department of K L University regarding the Different Research Areas.

SEMINAR IN BRIEF:

Fractional order PID (FOPID) controller was proposed for load frequency control (LFC) in an interconnected power system. This controller had five parameters to be tuned; thus, it provided two more degrees of freedom in comparison with the conventional PID. For proper tuning of the controller parameters, imperialist competitive algorithm (ICA) was used. ICA is a new evolutionary algorithm with proved efficiency. In this study, simulation investigations were carried out on a three-area power system with different generating units. These results showed that FOPID controller was robust to the parameter changes in the power system. Also, the simulation results certified much better performance of FOPID controller for LFC in comparison with conventional PID controllers.

PHOTOS:



Faculty of Electrical Department listening the Seminar