



## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR 2021-22 / ODD SEMESTER

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Date: 09.12.2021

### INTERNAL FACULTY SEMINAR REPORT

#### Objective:

- To impart knowledge to faculty on recent developments and technological advancements in the field of Electrical and Electronics Engineering.
- To improve the IEEE journal access by faculty through which they can update their knowledge on recent topics.

**Title:** Distributed Energy Trading in Smart Grid Over Directed Communication Network

**IEEE Journal:** IEEE Transactions on Smart Grid, Volume: 12, **Page(s):** 3669-3672,

**Year:** 2021

Internal seminar for the faculty of Electrical and Electronics Engineering Department was conducted on 08.12.2021 from 3.30 P.M to 4.30 P.M in Electrical Machines Lab. Dr.A.Albert Martin Ruban, Professor/EEE delivered the lecture on the topic “**Distributed Energy Trading in Smart Grid Over Directed Communication Network**”.

He explained about distributed solution for energy trading in smart grid with voltage and congestion management. He also presented about the energy trading formulated with a distributed consensus algorithm to optimize both generation and demand-side cost functions based on incremental cost.

The paper is mainly focused on an efficient consensus-based distributed ET algorithm and it was designed over the least number of directed communication links considering voltage and congestion management. The effectiveness of the ET algorithm was justified through Simulations in IEEE 14, 39 and 69-bus systems.

**Outcomes:**

- Obtained the knowledge on Energy Trading in Smart Grid over Directed Communication Network.



**DRC Member/EEE**

**HoD/EEE**

**Principal**