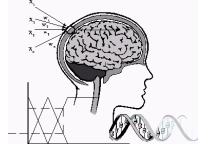




# International

*Innovation in Knowledge Based and Intelligent  
Engineering Systems*



## INVITED SESSION SUMMARY

**Title of Session:**

*Applications of Knowledge Based and Artificial Intelligence in Electric Power Systems*

**Name, Title and Affiliation of Chair:**

*Prof. Mohamed A. Moustafa Hassan, Elec. Power Dept., Cairo University, Giza, Egypt*

**Details of Session (including aim and scope):**

The advanced Application of *Knowledge Based* and Artificial Intelligent Approaches were introduced recently in many applications of Electric Power Systems (EPS). These approaches started with introducing Fuzzy Logic (FL) in the last decades of the last century. Furthermore, Artificial Neural Network (ANN) was introduced to tackle different problems in EPS. Recently the application of Adaptive Neuro-Fuzzy Inference System (ANFIS) was introduced and discussed. Meanwhile, Particle Swarm Optimization approaches were developed. However, the input data to these tools are mainly derived from the computed components of the voltage and current measurements using digital signal processing like Discrete Fourier Transform. This special session will concentrate on the application of these tools in Electric Power Systems (EPS).

**Main Contributing Researchers / Research Centres (tentative, if known at this stage):**

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