

REPORT ON GUEST LECTURE

1	Name of the Activity/Event	<i>Electrical simulation and control of boilers</i>		
2	Date of Activity/Event	12/09/18		
3	Organized by/Name of the committee	EEE Department		
4	Place of Activity/event	Edison Auditorium		
5	Resource person/guest/organization	Mr.B.Vamsi Kumar Sarma, Simulation engineer, SIMINFOSYSTEMS,Chennai		
6	Type of activity/Event	Guest lecture		
7	Activity/Event objectives	1.Knowledge on plc and scada		
8	Participation	Students	Faculty	Total Participation
9	General remarks	1.Need more Explanation 2.Fast Delivery		
10	Suggested Improvements	1.Need one day session		
11	Enclosures	1.Report 2.Photos 3.Attendance		

A Guest lecture on “*Electrical simulation and control of boilers*” was organized by department of EEE at Narayana engineering college, Nellore, for IV EEE students 12/9/2018 by our college Alumni Mr.B.Vamsi Kumar Sarma, Simulation engineer,SIMINFOSYSTEMS,Chennai. The session is about Techniques used in boilers are similar to other methods developed for process control and used terminology somewhat different to the main control community wedded to servomechanisms. Many industrial procedures in use today are included in this reference with the exception that most are now implemented in digital form using microprocessors. Boilers as with other process control suffer delay times in the process and special methods have to be used to control those tuning PID controllers with neural networks. Many of the techniques being researched are quite sophisticated because of the non-minimum phase response of heat exchange systems. Current research is typified by who designed optimization for load following, who applied modern H_{∞} control, who used Lyapunov control. Fuzzy control has also been investigated but little evidence is available in order to judge its' merits. A substantial amount of current research is either Eastern European or Chinese in origin and translations are not readily available. Possible controllers that have merit are Neural Networks combined with Fuzzy systems. These controllers would be trained how to operate and hold some advantages over other devices. It would be easier to set up than some more complex

controllers and could deal with very complex situations. Robust optimum PID control is described by who obtained asymptotic solutions to the eigen structure assignment comparing favorably with loop recovery methods.

In this session they discussed the important topics of *Techniques to control the boilers* and also covered the topics control using loop shaping to achieve good PID performance.





HOD