



Department of Instrumentation and Control Innovative Teaching Method

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| Class: | T.E. |
| Name of Method: | Case Study |
| Subject: | Control System Design |
| Name of Staff | Mr. S. B. Lukare |
| Date and Time: | Posted On: 12/10/2020 Due Date:28/10/2020 |
| No of students: | 40/49 |
| Learning Objective: <ol style="list-style-type: none"> To tune PID controllers using classical approach (analytical and experimental) to satisfy the user requirements. To understand the content flow and simulation results from the published literature. | |
| Outcomes: On completion students were able to <ol style="list-style-type: none"> Apply direct synthesis approach for design of feedback controller Understand different sections in the published literature | |
| Description: <p align="center">All the students in the class have assigned with the reference paper Refer on “PI/PID Controller Design Based on Direct Synthesis and Disturbance Rejection” Dan Chen and Dale E. Seborg* Department of Chemical Engineering, University of California, Santa Barbara, California 93106</p> <ul style="list-style-type: none"> Students are informed to read the content carefully for Direct Synthesis approach of feedback controller design (Case Study). The topic understanding by the students is assessed through the Google Quiz based on the content from the published literature. | |
| Impact of Innovative Method: <p>In general students have less affection towards the standard published literature. To overcome the fear about the standard literature, students are motivated to understand the concept from the standard literature and to study the flow of the research paper.</p> <p>The known topic of direct synthesis for feedback controller design is just revised through the standard reference.</p> <p>This activity is slightly able to create an interest amongst the mentee students about the standard published literature.</p> <p>After an assessment it is observed that more than 65% (26/40) of the students have scored more than 60%. The percentage participation of students in task is about 81.63 % (40/49).</p> | |
| Pos and PSOs: PO1, PO2, PO3, PO4, PSO1 | |

