

## 高 等 模 糊 控 制 (Advanced Fuzzy Logic Control)

| Topic 1: Introduction to Fuzzy Set                                    |
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| Topic 2: Design of Fuzzy Logic Controller (FLC)                       |
| Topic 3: Case Study: A 2nd-order Plant                                |
| Topic 4: Appliances: Washing-Machine, Electronic Rice Cooker          |
| Topic 5: Applications of FLC  |
| Topic 6: Fuzzy Set Theory   |
| Topic 7: Introduction to Genetic Algorithm and GA based FLC Design    |
| Topic 8: Fuzzy Relations  |
| Topic 9: Pattern Recognition via Fuzzy Sets                           |
| Topic 10: Fuzzy Implications  |
| Topic 11: Fuzzy + PID   |
| Topic 12: Self Organized FLC  |
| Topic 13: Design of Lyapunov Function Based Fuzzy Logic Controller    |
| Topic 14: Parallel Fuzzy Sliding Mode Control of the Cart-Pole System |
| Topic 15: Design of FLCs for Car-Like Mobile Robot                    |
| Topic 16: Takagi-Sugeno Fuzzy Control System                          |
| Topic 17: Related Problem Discussions & Oral Presentation             |
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