

Fuzzy Logic Control Systems

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ENGR 315

December 5, 2001

What is Fuzzy Logic?

- Fuzzy logic allows any value between 0 and 1.
- Fuzzy logic is a superset of Boolean logic.
- Fuzzy logic allows half truths such as:
“The cup is both half full and half empty.”

Fuzzy Logic Operations

- Intersection
 - $0.4 \text{ AND } 0.9 = 0.4$ [$\min(A,B)$]
- Union
 - $0.4 \text{ OR } 0.9 = 0.9$ [$\max(A,B)$]
- Complement
 - $\text{NOT } 0.4 = 0.6$ ($1 - A$)