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بالرسالة صفحات

لم ترد بالأصل



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**TUNING FUZZY LOGIC CONTROLLER BY  
GENETIC ALGORITHMS WITH APPLICATION TO  
FLEXIBLE JOINT ROBOTIC MANIPULATOR**

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By

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**A Thesis Submitted to**

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IN**

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# TUNING FUZZY LOGIC CONTROLLER BY GENETIC ALGORITHMS WITH APPLICATION TO FLEXIBLE JOINT ROBOTIC MANIPULATOR

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## LIST OF ABBREVIATIONS

|                |                                |
|----------------|--------------------------------|
| FL             | Fuzzy Logic.                   |
| FLC            | Fuzzy Logic Controller.        |
| KB             | Knowledge Base.                |
| DB             | Data Base.                     |
| RB             | Rule Base.                     |
| GA             | Genetic Algorithm.             |
| AI             | Artificial Intelligence.       |
| FCR            | Fuzzy Control Rule.            |
| MF             | Membership Function.           |
| SGA            | Simple Genetic Algorithm.      |
| $P_c$          | Probability of crossover.      |
| $P_m$          | Probability of mutation.       |
| $\bar{F}$      | Average fitness of population. |
| $\delta(\ell)$ | Defining length.               |
| $o(h)$         | Order of schema.               |
| $p_d$          | Probability of destruction.    |
| $p_s$          | Probability of survival.       |
| PopSize        | Population Size                |
| GFS            | Genetic Fuzzy System.          |
| GFC            | Genetic Fuzzy controller.      |
| TRD            | Training Data.                 |
| E              | Quadratic error.               |
| DOF            | Degree Of Freedom.             |
| FIS            | Fuzzy Inference System.        |
| TF             | Transfer Function.             |
| FCS            | Fuzzy Classifier system.       |

