CHAPTER 60

TECHNOLOGY
INSTRUMENTATION & CONTROL ENGINEERING

Doctoral Theses

654. ASHA RANI
Modeling, Simulation and Control of Distillation Process Using Intelligent Techniques.
Supervisor : Prof. J. R. P. Gupta
Th 20115

Contents

1. Introduction. 2. Literature review. 3. Simulation models for multicomponent distillation process and reactive distillation process. 4. Results and discussion. 5. Conclusions and future scope of work. 6. List of Publications, bibliography and appendix.

655. BHARDWAJ (Saurabh)
System Identification & Control Using Hybrid Combination of Statistical & Soft Computing Techniques.
Supervisor : Prof. Smriti Srivastava
Th 19914

Contents

1. Introduction. 2. Pattern similarity based clustering. 3. Time series prediction. 4. Speaker identification. 5. Wavelet packet based multi-resolution feature extraction approach for speaker recognition. 6. Solar radiation estimation. 7. Choquet fuzzy integral based controller. 8. Conclusion and future work. 9. Reference and appendixes.

656. GAIDHANE (Vilas Haridas)
Some Aspects of Control Techniques in Image Processing and their Applications.
Supervisors : Dr. Vijander Singh and Dr. Yogesh V. Hote
Th 20242

Contents

1. Introduction. 2. Image processing. 3. Control techniques. 4. Gerschgorin circle theorem in medical image registration. 5. Algorithm on common eigenvalues in PCB defect detection and face recognition. 6. Conclusions and future scope. 7. References and appendix.

657.   GUPTA (Monika)
Some Studies on Power Quality Assessment and Control using Soft Computing Techniques.
Supervisor : Prof. Smriti Srivastava
Th 19915

Contents

1. Introduction. 2. A faster estimation technique applied to power quality problems. 3. Online tracking and mitigation of voltage flicker using neural network. 4. Online load frequency control. 5. A novel control scheme for load frequency control. 6. A novel controller for model with combined LFC and AVR loops of single area power system. 7. Intelligent control of DSTATCOM using FOPI based controller and ELC and for power quality improvement. 8. A hybrid control scheme based on probabilistic and fuzzy logic approaches for dynamic voltage restorer. 9. Conclusion and Scope of future work. 10. References and appedixes.