Reg. No. : | | | | | | | | | | |

Question Paper Code: 52559

M.E. DEGREE EXAMINATION, NOV 2016

Elective

Power Electronics and Drives

15PPE524 - OPTIMIZATION TECHNIQUES IN POWER ELECTRONICS

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 20 = 100 Marks)

1. (a) (i) Explain encoding and decoding functions of optimization problems in detail. (10)

(ii) Explain classical optimization techniques in non-linear programming. (10)

Or

(b) What are elimination and Interpolation methods and explain Non linear Programming I: one dimensional minimization methods. (20)

2. (a) With example explain Evolutionary Strategy and Evolutionary programming in detail. (20)

Or

(b) Describe about Evolutionary strategy and evolutionary Programming. (20)

3. (a) Classify differential Evolution techniques and explain in detail. (20)

Or

(b) With example explain simplify particle Swarm optimization. (20)

4. (a) Explain conventional approaches for MOOP. (20)

Or

(b) Explain with example Multi objective dynamic neighborhood PSO. (20)

5. (a) Apply optimization techniques to harmonic elimination in inverters. (20)

Or

(b) Explain optimized, Fuzzy logic control for the maximum power point tracking for PV system. (20)

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