Communications Area MS Comprehensive Examination

Subject Exam


Topics:

EE558: Formatting and baseband modulation, baseband demodulation/detection, communication link analysis

EE641: Antenna parameters and noise, radio wave propagation, path-loss in terrestrial wireless channels and link budgets, channel characterization and classification, multiple access and cellular systems

EE650: Bandpass modulation and demodulation/detection, multiplexing and multiple access, spread spectrum techniques

EE652: Calculation of entropy, differential entropy and mutual information for sources, Huffman coding, calculation of channel capacity

EE653: Linear block codes, cyclic codes

EE655: QAM, Equalization, phase locked loops, orthogonal frequency division multiplexing

Suggested Texts:
2. Khalid Sayood, “Introduction to Data Compression,” Morgan Kaufmann

Examination Format:

The set of problems in each area will include two essay questions (from which the examinee can choose one), and five technical problems (out of which the examinee can choose four) to answer. The technical (non-essay) questions will include one comprehensive problem from each graduate course chosen by the student in that area of specialization and listed in Guidelines for Suggested Courses.