

Technical University of Lodz

Institute of Electronics

PROPOSAL OF THESIS TOPIC FOR MGR INŻ. (MSE) PROGRAMME IN TELECOMMUNICATIONS AND COMPUTER SCIENCE

Topic: Methods of percolation transfer to model communication links

Topic in Polish: Metody przejścia perkolacyjnego w modelowaniu połączeń komunikacyjnych

Supervisor: Dr. Małgorzata Langer

Auxiliary supervisor: —

Goals and scope of the work:

The method is to be used to simulate topologically disordered (e.g. ad hoc type) network in a stochastic environment. A short program will be written (in Java, C+, Pascal, or any other...) Then MC simulations will be held for various random cases and results will be calculated statistically (STATISTICA may be used)

Prerequisites (e.g. experience in writing programs in a computer language or knowledge of a foreign language):

The program must be written, so the capability to write in any computer language is necessary

Literature:

Internet, tutorials from courses, manuals

Łódź, 2009-06-01

Supervisor's signature

Student's ID____

THESIS TOPIC SELECTION ACKNOWLEDGMENT

| Student' | s r | name: |
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|----------|-----|-------|

Faculty:

Main subject/major/module:

Date and student's signature

Supervisor's signature



Institute of Electronics

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PROPOSAL OF THESIS TOPIC FOR MGR INŻ. (MSE) PROGRAMME IN TELECOMMUNICATIONS AND COMPUTER SCIENCE

Topic: Networks with disordered parameters

Topic in Polish: Sieci o parametrach nieuporządkowanych

Supervisor: Dr. Małgorzata Langer

Auxiliary supervisor: —

Goals and scope of the work:

It may be not difficult to calculate the effective reflection loss or damping of either material I or of material II, but what are the values for a 'mixture' of these materials? The result must be a random variable whose distribution depends on the ratio I:II. The program to perform this calculations is to be written (the phenomenon of percolation should be involved here); and some results will be discussed.

Prerequisites (e.g. experience in writing programs in a computer language or knowledge of a foreign language):

The program must be written, so the capability to write in any computer language is necessary

Literature:

Internet, tutorials from courses, manuals

Łódź, 2009-06-01

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