Comenius University in Bratislava
Faculty of Mathematics, Physics and Informatics

THESIS ASSIGNMENT

Name and Surname:	Bc. Martin Šrámek
Study programme:	Computer Science (Single degree study, master II. deg., full time form)
Field of Study:	9.2.1. Computer Science, Informatics
Type of Thesis:	Diploma Thesis
Language of Thesis:	English

Title: Transferring information by ringing a cell phone

Aim: The possibility to ring a cell phone for free can be seen as a covert channel that allows the users of a mobile network to transfer information. The main goal of this thesis is to analyze the maximum bit rate of this channel. The thesis has to contain a practical analysis of this covert channel, followed by designing a theoretical model of the channel that will be considered in the following chapters of the thesis. The thesis then has to contain a specific design of the communication protocol. In particular, the author should consider various methods of information encoding, and verify whether a good error-correcting code can increase the channel capacity. A practical implementation of some of the results would be a welcome addition to the thesis. Finally, as a goal that is beyond the required content of the thesis, we suggest to analyze situations with more than two participants.

Supervisor:	RNDr. Michal Forišek, PhD.
Department:	FMFI.KI - Department of Computer Science
Head of department:	doc. RNDr. Daniel Olejár, PhD.
Assigned:	14.11.2012
Approved:	19.11.2012

prof. RNDr. Branislav Rovan, PhD.
Guarantor of Study Programme

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Student

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Supervisor