

Presentment of PhD's student by supervisor

PhD student, Tumenbayar Lkhagvatseren, has studied at the Tomas Bata University almost 4 years. He was interested in published theme **“Measurement systems - connection between sensors and embedded system”**.

He was studied excellently. He passed successfully and fast all obligatory and option exams too. The exams were requiring big demands to their passing because he has had not the adequate base of studying. The studying of physics, sensors, measurement system, electronics, communication and next is at other level in Europe.

The study of PhD theme of student was stated more precisely according to possibility of learning. The right and optimal way was finding to definite the goals of PhD study. There were two points of the field of sensors and two of the communication. The theoretical part of study was connected through practical activity by model of sensors and measurement of propagation and penetration of microwaves.

The student has had to learn the basis of sensors, their physics principles, parts of physics science, chemical and mechanics law at first. He was learning special chapter of electronics and he got different skills in the field. The learning of wireless communication asked for big demands. It was elected it there is a new special field of communication. It has been developing very intensive in the world and a reason was he has to learn it as a perspective part of communication.

I can say today:

1. The student knows the field of sensors (from resistive, capacitive, inductive, magnetic up to semiconductor elements), its theoretical base; he has demonstrated it in special laboratory set with two channels of strain gauges, he had to solve the problems of signal condition too.
2. The student was learning the communication at microwave range. He was measuring with high special technique by propagation of waves in rooms and microwave penetration through wall, different materials.
3. The student was done the modeling and simulation in Matlab Simuling (sensors) and in special simulating software of microwave penetration.

The student has written a special document about obtained knowledge in home language , in Mongolian. He could transfer his understanding home, at technical public, at universities.

The student is a hard-working, studious, diligent man, he is decent, characterful, tolerant. The partnership of the student and by me has been very good, exemplary, regular and successful.

The results of the his studying bring interesting aspects to professional range too. I evaluate mainly the modeling of sensors in MatlabSimulink. The important value has the

measurement of propagation and penetration. There are a lot of data which can be used at our Faculty.

I'm proud to lead his to defense of dissertation. The results of his studying at the UTB are in his dissertation work, he will present his work in the moment. I recommend his dissertation work to defense. I hope you will evaluate the results of his study positive too.

Assoc. Professor František Hruška, Ph.D. , supervisor

Zlín, 22.6.2011

A handwritten signature in blue ink, appearing to read 'František Hruška', is written in a cursive style.