Hodnocení bakalářské práce – vedoucí

Autor hodnocení:	doc. MSc. Donald David Davendra, Ph.D.
Vedoucí bakalářské práce:	doc. MSc. Donald David Davendra, Ph.D.
Oponenti:	prof. Ing. Ivan Zelinka, Ph.D.
Téma:	Analýza dynamiky evolučních algoritmů pomocí komplexních sítí aplikovaných na kombinatorické optimalizační problémy
Verze ZP:	1
Student:	Bc. Jan Gazda

1. *Zadání závěrečné práce.*

   The complexity of the thesis was to analyse the development and analysis of complex network development in evolutionary algorithms, applied to combination optimization problems. This topic is an extensively researched area, with a number of research organisation dedicated to it.

   The stated assigned was successfully completed by the student and all aims of the thesis were fulfilled. Evolutionary algorithms were shown to create complex networks for different combinatorial optimization problems, which were then analysed using complex network tools.

2. *Aktivita studenta během řešení.*

   The student exhibited a high degree of research awareness and met all weekly tasks. The student proved that he could work independently on the given tasks, with high success.

3. *Aktivita při dokončování.*

   The thesis was finished well in advance of the due date, and the work was sufficiently edited with comments. The student proved diligent in these tasks.

4. *Hodnocení výsledků závěrečné práce.*

   The conclusion of the thesis validates that evolutionary algorithms when solving combinatorial optimization problems do form complex networks. These complex networks can be analysed using complex network tools, which can then be used for adaptive control of the evolutionary algorithms. This thesis proves a significant concept in evolutionary algorithm design, and the level of the thesis can be evaluated as very high.

5. *Hodnocení práce z hlediska přínosu nových poznatků.*

   The work is current-state-of art, which is currently being researched in the Department. This thesis introduces new findings to the area of complex networks. These results can be further used in adaptive control of evolutionary algorithms.

6. *Charakteristika výběru a využití studijních pramenů.*

   The students used published material of the supervisor as background research. All these were appropriately cited in-text and bibliography, to show clearly where the contribution came from. It can be confidently stated that the students had done original research which is correctly documented.

7. *Souhrnné hodnocení.*

   The work is of an excellent level, and all stated aims were met and exceeded by this thesis. The student was exemplary in his work for this thesis.

8. *Otázky k obhajobě.*

Celkové hodnocení: výborně

Ostrava, 15.05.2014

doc. MSc. Donald David Davendra, Ph.D.

Classification of Bachelor Thesis – supervisor

Author of classification:	doc. MSc. Donald David Davendra, Ph.D.
Supervisor:	doc. MSc. Donald David Davendra, Ph.D.
Opponents:	prof. Ing. Ivan Zelinka, Ph.D.
Title:	Complex Network Analysis of Evolutionary Algorithms Applied to Combinatorial Optimization Problem.
Thesis version:	1
Student:	Bc. Jan Gazda

1. *Assignment of the thesis.*
   The complexity of the thesis was to analyse the development and analysis of complex network development in evolutionary algorithms, applied to combination optimization problems. This topic is an extensively researched area, with a number of research organisation dedicated to it.

   The stated assigned was successfully completed by the student and all aims of the thesis were fulfilled. Evolutionary algorithms were shown to create complex networks for different combinatorial optimization problems, which were then analysed using complex network tools.
2. *Student's activity during the project completing.*
   The student exhibited a high degree of research awareness and met all weekly tasks. The student proved that he could work independently on the given tasks, with high success.
3. *Student's activity during the process of completion.*
   The thesis was finished well in advance of the due date, and the work was sufficiently edited with comments. The student proved diligent in these tasks.
4. *Overall evaluation of the thesis*
   The conclusion of the thesis validates that evolutionary algorithms when solving combinatorial optimization problems do form complex networks. These complex networks can be analysed using complex network tools, which can then be used for adaptive control of the evolutionary algorithms. This thesis proves a significant concept in evolutionary algorithm design, and the level of the thesis can be evaluated as very high.
5. *Evaluation of the new findings contribution.*
   The work is current-state-of art, which is currently being researched in the Department. This thesis introduces new findings to the area of complex networks. These results can be further used in adaptive control of evolutionary algorithms
6. *Utilization and selection of information sources.*
   The students used published material of the supervisor as background research. All these were appropriately cited in-text and bibliography, to show clearly where the contribution came from. It can be confidently stated that the students had done original research which is correctly documented.
7. *Summary evaluation.*
   The work is of an excellent level, and all stated aims were met and exceeded by this thesis. The student was exemplary in his work for this thesis.
8. *Question for the defense of the thesis.*

Overall classification: excellent

Ostrava, 15.05.2014

doc. MSc. Donald David Davendra, Ph.D.