Title: **From Perceptrons to Deep Neural Network**

Abstract: Deep neural networks are intensively researched field of artificial intelligence. Big companies like Google, Microsoft or Facebook are supporting research and development in this field. The recent victory over human player in the game of Go points to a huge potential of this approach. Machine learning approaches based on deep learning techniques brings significant gain over existing methods based on manually tuned features in different areas. In this paper we present the evolution of deep neural networks from first neuron models towards todays deep architectures.

Peter Lacko received his Master degree in Software Engineering in 2004, and his Ph.D. in artificial intelligence in 2009, both from Slovak University of Technology. Currently he is an assistant professor of informatics at the Slovak University of Technology. His research interests include artificial intelligence, neural networks, software engineering and parallel and distributed computing. He is a member of ACM and IEEE and its Computer Society.