Bayesian Networks

Prof. Dr. Rudolf Kruse, Alexander Dockhorn

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About me: Rudolf Kruse

In 1979 diploma in mathematics (minor computer science) at TU Braunschweig
There dissertation in 1980, habilitation in 1984
2 years full-time employee at Fraunhofer Institute
In 1986 offer of professorship for computer science at TU Braunschweig
Since 1996 professor at the University of Magdeburg

**Research:** data mining, explorative data analysis, fuzzy systems, neuronal networks, evolutionary algorithms, Bayesian networks

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Consultation: Thursday, 10 a.m. – 11 noon
About the lecture

Lecture dates: Thursday, 11:15 –12:45, G29-307

Information about the course:
http://www.is.ovgu.de/Teaching/WS+2017_2018/Bayes+Networks.html
  ◦ Weekly lecture slides as PDF
  ◦ Also assignment sheets for the exercise
  ◦ Online registration for exercises
  ◦ Important announcements and date!
Content of the lecture

Introduction
Rule-based Systems
Elements of Graph Theory
Decomposition
Probability Foundations
Applied Probability Theory
Probabilistic Causal Networks
Propagation in Belief Networks
Learning Graphical Models
Decision Graphs / Influence Diagrams
Frameworks of Imprecision and Uncertainty
About the exercise

Active participation and explanations of your solutions
Assistant will call attention to mistakes and answer questions
Pure ‘calculations’ of sample solution is not the purpose
Assistant:
○ Alexander Dockhorn, alexander.dockhorn@ovgu.de

First assignment due October 17./18.
○ Tuesday: 9:15 – 10:45 am (G29-K059), Dockhorn (english)
○ Wednesday: 1:15 – 2:45 pm (G29-E037), Dockhorn (german)
Exam or Certificate will get who...
Contribute well in exercises every week,
Present ≥ 2 solutions to written assignment during exercises.
Tick off ≥ 66% of all written assignments,
Pass written exam (120 min)
Books about the course

http://www.computational-intelligence.eu/