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LECTURE NOTES **16**

# Reliability-Based Design and Optimisation

AMAS Course – RBO'03

Warsaw, September 15-18, 2003

*edited by*

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and

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Centre of Excellence for  
Advanced Materials and Structures

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## Foreword

This volume contains the lectures and abstracts of communications delivered during the Advanced Course on Reliability-Based Design and Optimisation RBO'03. The Course was held in September 15-18, 2003 in Warsaw as one of the series of advanced courses organized by the Center of Excellence for Advanced Materials and Structures (AMAS). The coordinators of the Course were: Prof. Stefan Jendo and Assoc. Prof. Krzysztof Doliński. The number of participants was approximately 60, including 20 from abroad: Czech Republic, Germany, Italy, Japan, Russia, Switzerland, Sweden. The Course was addressed mainly to graduate, postgraduate and PhD students as well as to researchers and engineers whose interests are related to reliability analysis and optimisation. Invited scientists from Europe, United States and Canada delivered the lectures on the problems related to the Reliability Engineering. Some short communications were also presented by the participants. The included papers present state of the art of theoretical and practical problems in the field of reliability engineering like: reliability-based design, reliability-based optimisation, response surface methodology, stochastic load modelling, deterioration and life cycle analysis, modelling of structural systems, stochastic computational mechanics. The authors managed to present their lectures in a comprehensible manner so that they can also be recommended for students with basic knowledge in the field.

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