



Research School for Operations
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Redundancy allocation for systems with uncertain component reliabilities using robust optimization

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This research will propose a robust optimization of the RAP under uncertain components reliabilities considering life cycle costs (LCC) and environmental factors. Little literature is available on getting the optimal solution of RAP with uncertain components qualities. But it is very common that in advanced technologies, the qualities of complex system components vary from weak to strong. Our research fills this gap and explores the LCC to support the decision making process of Original Equipment Manufacturers (OEMs) during the exploitation phase of the complex systems. In this project, robust optimization will be used to address the uncertain component reliabilities in series-parallel reliability systems.