



# PhD dissertation

**Piotr Nowak**

Duis vulputate eros sed dolor volutpat,  
nec aliquam risus pharetra.  
Phasellus erat arcu, mattis non nunc  
vitae, viverra porta sem

Field of science engineering and technology

Discipline of science:  
automation, electronics, electrical engineering and space technologies

Faculty of Electrical Engineering

Supervisor:  
Assoc. Prof., DSc, PhD, Eng.

**Jan Kowalski**

Assistant supervisor:  
PhD, Eng.

**Magdalena Nowak-Kowalska**

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