

# Dissertação de Mestrado em Engenharia Informática (2018/2019)

**Title:** Models for Automatic Test Case Generation

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## Summary

Software systems have been adopted in many sections of our life such as industry, health, transportation, and media. On the one hand, software reliability is challenging and a very relevant task. On the other hand, software testing as a way for verifying the right to work of a software system, is one of the most expensive activities and time consuming in development of software. A well tested software system will be validated by the customer before acceptance [1]. In line with this, the proposed topic aims to develop a novel and disruptive model for automatic test case generation.

## Tasks

- T1 – Technological background study;
- T2 – Review the State-of-the-art;
- T3 – Requirements Analysis;
- T4 – Design and construction, including integration;
- T5 – Testing and evaluation;
- T6 – The writing of the dissertation.

## Expected result

In this research work the following deliverables are expected:

- A validated computational tool for automatic test case generation;
- A publication describing the method and the validation results.

## Timeline

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
T1	X	X	X						
T2		X	X	X					
T3			X	X					
T4				X	X	X			
T5						X	X	X	
T6					X	X	X	X	X

## References:

1. Prasanna, M., Sivanandam, S.N., Venkatesan,R., Sundarajan, R, A Sourvey on Automatic Test Case Generator, *Academic Open Internet Journal*, 15, 2015.