



## How to teach testing?

TIBOR GREGORICS, KRISZTIÁN MÓZSI and RUDOLF SZENDREI

*Abstract.* Testing methodology is an important part of IT education. It is desired to show the beginner programmer students the advantage of testing by having them do only a small amount of work. In this paper, we will show how to make testing as a part of programming in simple exercises. These exercises are solved with the analogous programming technique, which is based on programming theorems over enumerators. We have elaborated grey-box test cases for the programs which have been developed based on programming theorems. These test cases can be taught together with the programming theorems, and they can serve as a standard testing procedure for programmers. We also suggest a test tool to automatize test runs, and we will discuss its usage in a short case study.

*Key words and phrases:* programming technology, program testing.

*ZDM Subject Classification:* P50.

TIBOR GREGORICS  
EÖTVÖS LORÁND UNIVERSITY, FACULTY OF INFORMATICS  
HUNGARY 1117 BUDAPEST, PÁZMÁNY PÉTER SÉTÁNY I/C

*E-mail:* [gt@inf.elte.hu](mailto:gt@inf.elte.hu)

KRISZTIÁN MÓZSI  
EÖTVÖS LORÁND UNIVERSITY, FACULTY OF INFORMATICS  
HUNGARY 1117 BUDAPEST, PÁZMÁNY PÉTER. SÉTÁNY I/C

*E-mail:* [mozsik@inf.elte.hu](mailto:mozsik@inf.elte.hu)

RUDOLF SZENDREI  
EÖTVÖS LORÁND UNIVERSITY, FACULTY OF INFORMATICS  
HUNGARY 1117 BUDAPEST, PÁZMÁNY PÉTER SÉTÁNY I/C

*E-mail:* [swap@inf.elte.hu](mailto:swap@inf.elte.hu)

*(Received April, 2018)*