



P. J. Šafárik University in Košice Faculty of Science

THESIS ASSIGNMENT

Name and Surname: Jakub Ďuraš

Study programme: Applied Informatics (Single degree study, bachelor I. deg.,

external form)

Field of Study: 18. - Computer Science

Type of Thesis: Bachelor thesis

Language of Thesis: English **Secondary language:** Slovak

Title: Replacing handwritten signatures with open electronic signature software

Title SK: Náhrada vlastnoručných podpisov otvoreným softvérom na elektronické

podpisovanie

Aims: 1. Explore the principles and legal status of electronic signatures.

2. Review existing software and propose and develop open-source, cross-

platform, and user-friendly platform for electronic document signing.

3. Provide information and a way to create signatures compliant with eIDAS

Regulation (Regulation No 910/2014).

References: [1] MASON, Stephen, 2017. Electronic Signatures in Law: Fourth

Edition. London: University of London. ISBN 978-1-911507-01-7. Available at: https://humanities-digital-library.org/index.php/hdl/catalog/view/

electronicsignatures/1/86-1

[2] PAAR, Christof and Pelzl, Jan, 2009. Understanding Cryptography

- A Textbook for Students and Practitioner. Berlin: Springer. ISBN

978-3-642-04100-6

[3] SOMMERVILLE, Ian, 2016. Software Engineering, 10th Edition. Harlow:

Pearson Education. ISBN 978-0-13-394303-0.

Keywords: electronic signature, electronic seal, qualified, open-source, XAdES, PAdES,

CAdES, desktop software

Supervisor: RNDr. Viliam Kačala

Institutes: ÚINF - Institute of Computer Science

Head of Institute: RNDr. Ondrej Krídlo, PhD.

Electronic version available: unlimited

Approved: 10.05.2020 Prof. RNDr. Viliam Geffert, DrSc.

riaditeľ ústavu