

Complete list of publications according to the citation standard ČSN ISO 960

February 2022

[Ing. Aleš Roček, Ph.D.](#)

ORCID: 0000-0002-6682-0891

2021

1. [MeteoRead: Client Software for Inserting Observed Atmospheric Data into MySQL Database and Downloading them into Different File Format](#)

BEÁTA SZABÓ-TAKÁCS, TAMÁS TAKÁCS and [Aleš ROČEK](#). MeteoRead: Client Software for Inserting Observed Atmospheric Data into MySQL Database and Downloading them into Different File Format. *Journal of Software Engineering and Applications*. 2021, vol. 14, No 10. ISSN 1945-3116. doi:10.4236/jsea.2021.1410033.

[URL](#)

Name (in English): MeteoRead: Client Software for Inserting Observed Atmospheric Data into MySQL Database and Downloading them into Different File Format

Keywords in English: Java Language, MySQL, Database, Atmospheric Data, Global Change

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. *Changed:* 18/10/2021 10:27.

More: <https://is.muni.cz/auth/publication/1798277/en>

2. [Zero Watermarking: Critical Analysis of Its Role in Current Medical Imaging](#)

[ROČEK, Aleš](#), [Michal JAVORNÍK](#), [Karel SLAVÍČEK](#) and [Otto DOSTÁL](#). Zero Watermarking: Critical Analysis of Its Role in Current Medical Imaging. *Journal of Digital Imaging*. 2021, vol. 34, No 1, p. 204-211. ISSN 0897-1889. doi:10.1007/s10278-020-00396-0.

[URL](#)

Name (in English): Zero Watermarking: Critical Analysis of Its Role in Current Medical Imaging

RIV: Article in a journal. English. Switzerland.

Roček, Aleš (203 Czech Republic, guarantor, belonging to the institution) --

Javorník, Michal (203 Czech Republic, belonging to the institution) -- Slavíček,

Karel (203 Czech Republic, belonging to the institution) -- Dostál, Otto (203 Czech Republic, belonging to the institution)

Keywords in English: Watermarking;DICOM;Medical imaging;Security;Integrity;Copyright

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. *Changed:* 17/2/2021 13:30.

More: <https://is.muni.cz/auth/publication/1734016/en>

2017

3. [Reversible Watermarking in Medical Imaging with Zero Distortion in ROI](#)

[ROČEK, Aleš](#), [Michal JAVORNÍK](#), [Karel SLAVÍČEK](#) and [Otto DOSTÁL](#). Reversible Watermarking in Medical Imaging with Zero Distortion in ROI. In *Proceedings of 24th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2017)*. New York: IEEE, 2017. p. 356-359. ISBN 978-1-5386-1911-7. doi:10.1109/ICECS.2017.8292071.

[URL](#)

Name (in English): Reversible Watermarking in Medical Imaging with Zero Distortion in ROI

RIV/00216224:14610/17:00098811 Proceedings paper. Informatics. English. United States of America.

Roček, Aleš (203 Czech Republic, guarantor, belonging to the institution) -- Javorník, Michal (203 Czech Republic, belonging to the institution) -- Slavíček, Karel (203 Czech Republic, belonging to the institution) -- Dostál, Otto (203 Czech Republic, belonging to the institution)

Keywords in English: Watermarking; DICOM; medical images; security; Reversible; Zero; ROI

International impact: yes

Reviewed: yes

Changed by: Mgr. Alena Mokra, uco 362754. Changed: 15/4/2019 15:16.

More: <https://is.muni.cz/auth/publication/1399291/en>

2016

4. [A new approach to fully-reversible watermarking in medical imaging with breakthrough visibility parameters](#)

[ROČEK, Aleš](#), [Karel SLAVÍČEK](#), [Otto DOSTÁL](#) and [Michal JAVORNÍK](#). A new approach to fully-reversible watermarking in medical imaging with breakthrough visibility parameters. *Biomedical Signal Processing and Control*. Elsevier, 2016, vol. 29, No 7, p. 44-52. ISSN 1746-8094. doi:10.1016/j.bspc.2016.05.005.

[URL](#)

RIV/00216224:14610/16:00090160 Article in a journal. Informatics. English. Netherlands.

Roček, Aleš (203 Czech Republic, guarantor) -- Slavíček, Karel (203 Czech Republic, belonging to the institution) -- Dostál, Otto (203 Czech Republic, belonging to the institution) -- Javorník, Michal (203 Czech Republic, belonging to the institution)

Keywords in English: Communication; DICOM; Medical images; Security; Watermarking; Visual cryptography; RONI

International impact: yes

Reviewed: yes

Changed by: Mgr. Alena Mokra, uco 362754. Changed: 28/4/2020 15:52.

More: <https://is.muni.cz/auth/publication/1347523/en>

5. [RONI Size and another Attributes of Representative Sample of Medical Images in Common Hospital Operation, Related to Securing by Watermarking Methods](#)

[ROČEK, Aleš](#), [Karel SLAVÍČEK](#) and [Michal JAVORNÍK](#). RONI Size and another Attributes of Representative Sample of Medical Images in Common Hospital Operation, Related to Securing by Watermarking Methods. In Prof. Osama Mohamed Mohamed Ahamed. *International Conference on Image Processing, Production and Computer Science (ICIPCS'16)*. London: URENG, 2016. p. 44-51. ISBN 978-93-84422-62-2.

Name (in English): RONI Size and another Attributes of Representative Sample of Medical Images in Common Hospital Operation, Related to Securing by Watermarking Methods

RIV/00216224:14610/16:00087606 Proceedings paper. Informatics. English.

Roček, Aleš (203 Czech Republic, guarantor, belonging to the institution) -- Slavíček, Karel (203 Czech Republic, belonging to the institution) -- Javorník, Michal (203 Czech Republic, belonging to the institution)

Keywords in English: Communication; database; DICOM; education; medical images; ROI; RON; security; watermarking

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 24/3/2017 09:50.

More: <https://is.muni.cz/auth/publication/1340916/en>

2015

6. [Watermarking in Regional Medical Imaging](#)

[JAVORNÍK, Michal](#), [Otto DOSTÁL](#) and [Aleš ROČEK](#). Watermarking in Regional Medical Imaging. In Valeri Mladenov, Elias Giacomidis, Jinlong Wei. *Proceedings of the 13th International Conference on Data Networks, Communications, Computers*. Hungary: World Scientific and Engineering Academy and Society, 2015. p. 222-226. ISBN 978-1-61804-355-9.

[URL](#)

Name in Czech: Vodoznačení v regionálním zpracování medicínských obrazových dat

RIV/00216224:14610/15:00080421 Proceedings paper. Computer hardware and software. English. Hungary.

Javorník, Michal (203 Czech Republic, belonging to the institution) -- Dostál, Otto (203 Czech Republic, guarantor, belonging to the institution) -- Roček, Aleš (203 Czech Republic, belonging to the institution)

Keywords in English: Watermarking; Picture Archiving and Communication in Medicine; Telemedicine; Medical Imaging; Information Security

Type of proceedings: post-proceedings

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 19/4/2018 13:29.

More: <https://is.muni.cz/auth/publication/1338774/en>

2014

7. [Comparative Study of Negative Aspects Elimination of Medical Image Watermarking Methods](#)

[ROČEK, Aleš](#) and [Vladimír ZATLOUKAL](#). Comparative Study of Negative Aspects Elimination of Medical Image Watermarking Methods. *International Journal of Information and Electronics Engineering*. 2014, vol. 5, No 1, p. 6-9. ISSN 2010-3719.

Name (in English): Comparative Study of Negative Aspects Elimination of Medical Image Watermarking Methods

RIV/00216224:14610/14:00076003 Article in a journal. Informatics. English. Singapore.

Roček, Aleš (203 Czech Republic, guarantor, belonging to the institution) -- Zatloukal, Vladimír (203 Czech Republic, belonging to the institution)

Keywords in English: communication; DICOM; medical images; security; watermarking

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 1/4/2015 11:33.

More: <https://is.muni.cz/auth/publication/1192702/en>

8. [Securing a Publicly Accessible Database of Medical Images Using Watermarking with Direct Diagnose Capability](#)

[ROČEK, Aleš](#) and [Michal JAVORNÍK](#). Securing a Publicly Accessible Database of Medical Images Using Watermarking with Direct Diagnose Capability. *Recent Advances in Computer Science*. 2014, vol. 13, No 24, p. 79-86. ISSN 1790-5109.

RIV/00216224:14610/14:00073305 Article in a journal. Informatics. English. Greece.

Roček, Aleš (203 Czech Republic, guarantor, belonging to the institution) -- Javorník, Michal (203 Czech Republic, belonging to the institution)

Keywords in English: Communication; DICOM; medical images; security; watermarking; education; database

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 4/4/2016 10:05.

More: <https://is.muni.cz/auth/publication/1213703/en>

9. [Zálohovací a dohledový systém pro InstantPACS \(Backup and monitoring system for InstantPACS\)](#)

[SLAVÍČEK, Karel](#), [Otto DOSTÁL](#), [Michal JAVORNÍK](#), [Aleš ROČEK](#), [Vladimír ZATLOUKAL](#) and Petr SEDLÁK. Zálohovací a dohledový systém pro InstantPACS (Backup and monitoring system for InstantPACS). 2014.

Name (in English): Backup and monitoring system for InstantPACS

RIV/00216224:14610/14:00073309 Pilot plant, certified technology, variety, breed. Informatics. Czech. Czech Republic. obsah podléhá obchodnímu tajemství.

Slavíček, Karel (203 Czech Republic, guarantor, belonging to the institution) --

Dostál, Otto (203 Czech Republic, belonging to the institution) -- Javorník, Michal

(203 Czech Republic, belonging to the institution) -- Roček, Aleš (203 Czech

Republic, belonging to the institution) -- Zatloukal, Vladimír (203 Czech Republic,

belonging to the institution) -- Sedlák, Petr (203 Czech Republic)

Keywords in English: InstantPACS; backup; monitoring

International impact: yes

Reviewed: yes

Changed by: doc. Mgr. Karel Slavíček, Ph.D., učo 1158. Changed: 20/4/2018 11:08.

More: <https://is.muni.cz/auth/publication/1217373/en>

2013

10. [Influence of the TCP packet setting and encryption for data transfer in medical applications](#)

[SCHINDLER, Vladimír](#) and [Aleš ROČEK](#). Influence of the TCP packet setting and encryption for data transfer in medical applications. In Nikos Mastorakis. *Recent Advances in Circuits, Systems, Telecommunications & Control*. Paris, FR: WSEAS Press, 2013. p. 96-101. ISBN 978-960-474-341-4.

Name in Czech: Simulace vlivů nastavení TCP paketu a šifrování na rychlost přenosu dat v medicínských aplikacích

Name (in English): Influence of the TCP packet setting and encryption for data transfer in medical applications

RIV/00216224:14610/13:00065539 Proceedings paper. Informatics. English. Greece.

Schindler, Vladimír (203 Czech Republic, guarantor, belonging to the institution) --

Roček, Aleš (203 Czech Republic, belonging to the institution)

Keywords in English: MSS Medical applications MeDiMed MTU IPsec Iperf PACS

Type of proceedings: post-proceedings

International impact: yes

Reviewed: yes

Changed by: Mgr. Marta Novotná Buršíková, učo 15689. Changed: 3/4/2017 09:59.

More: <https://is.muni.cz/auth/publication/1163344/en>

11. [The possibilities of using single-board computers for medical data transmission security](#)

[SCHINDLER, Vladimír](#) and [Aleš ROČEK](#). The possibilities of using single-board computers for medical data transmission security. *Przegląd Elektrotechniczny*. Wydawnictwo Czasopism i Książek Technicznych Sigma NOT, 2013, vol. 2013, No 6, p. 56-60. ISSN 0033-2097.

[URL](#)

Name in Czech: Možnosti použití jednodeskových počítačů pro zabezpečení přenosu medicínských dat

Name (in English): The possibilities of using single-board computers for medical data transmission security

RIV/00216224:14610/13:00065540 Article in a journal. Informatics. English. Poland.

Schindler, Vladimír (203 Czech Republic) -- Roček, Aleš (203 Czech Republic, guarantor, belonging to the institution)

Keywords in English: MeDiMed; PACS; single-board PC; embedded linux

International impact: yes

Reviewed: yes

Changed by: Mgr. Alena Mokra, uco 362754. Changed: 18/4/2018 17:16.

More: <https://is.muni.cz/auth/publication/1163351/en>

2012

12. [Medical image data security based on principles of digital watermarking methods](#)

[ROCEK, Aleš](#). Medical image data security based on principles of digital watermarking methods. In V. M. Marques, A. Dmitriev. *Advances in Data Networks, Communications, Computers and Materials*. Malta: WAEAS Press, 2012. p. 47-52. ISBN 978-1-61804-118-0.

RIV/00216224:14610/12:00057060 Proceedings paper. Informatics. English. Czech Republic.

Rocek, Aleš (203 Czech Republic, guarantor, belonging to the institution)

Keywords in English: watermarking; DICOM; security; medical; images; RONI

Type of proceedings: pre-proceedings

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Rocek, Ph.D., uco 205054. Changed: 13/3/2013 15:50.

More: <https://is.muni.cz/auth/publication/1091266/en>

13. [Metody zabezpecenı medicnskch obrazovch informacı využívajcı princip digitlnho vodoznacenı \(Methods of Medical Data Image Security Based on Principals of Digital Watermarking\)](#)

[ROCEK, Aleš](#). Metody zabezpecenı medicnskch obrazovch informacı využívajcı princip digitlnho vodoznacenı (Methods of Medical Data Image Security Based on Principals of Digital Watermarking). *Bezpenostnı teorie a praxe*. Praha: Policejnı akademie eske republiky, 2012, vol. 2012, No 4, p. 113-122. ISSN 1801-8211.

Name (in English): Methods of Medical Data Image Security Based on Principals of Digital Watermarking

RIV/00216224:14610/12:00067895 Article in a journal. Informatics. Czech. Czech Republic.

Rocek, Aleš (203 Czech Republic, guarantor, belonging to the institution)

Keywords in English: watermarking; DICOM; security; medical data

Reviewed: yes

Changed by: Ing. Aleš Rocek, Ph.D., uco 205054. Changed: 1/4/2015 11:40.

More: <https://is.muni.cz/auth/publication/1091269/en>

14. [Secure medical multimedia DICOM data transfers over Internet](#)

[ZATLOUKAL, Vladimır](#) and [Aleš ROCEK](#). Secure medical multimedia DICOM data transfers over Internet. In World Scientific and Engineering Academy and Society. *ADVANCES in DATA NETWORKS, COMMUNICATIONS, COMPUTERS and MATERIALS*. Sliema, Malta: WSEAS Press, 2012. p. 104-108. ISBN 978-1-61804-118-0.

Name (in English): Secure medical multimedia DICOM data transfers over Internet

RIV/00216224:14610/12:00057053 Proceedings paper. Informatics. English.
Czech Republic.

Zatloukal, Vladimír (203 Czech Republic, guarantor, belonging to the institution) --
Roček, Aleš (203 Czech Republic, belonging to the institution)

Keywords in English: DICOM; security; collaboration; multimedia; medical images;
communication

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 1/4/2015 11:35.

More: <https://is.muni.cz/auth/publication/1078143/en>

2009

15. [Environment for effective training in medical image diagnostics](#)

HRTOŇOVÁ, Nina, [Michal JAVORNÍK](#), [Aleš ROČEK](#) and [Vladimír ZATLOUKAL](#). Environment for effective training in medical image diagnostics. In *Research, Reflections and Innovations in Integrating ICT in Education*. 1st ed. Badajoz, Spain: Formatex, 2009. p. 1221-1224. ISBN 978-84-692-1790-0.

Keywords in English: medicine; collaborative environments; e-learning; DICOM;
PACS; medical database; education; life-long learning; radiology

Type of proceedings: pre-proceedings

International impact: yes

Reviewed: yes

Changed by: Mgr. Nina Hrtoňová, učo 2086. Changed: 28/4/2009 13:31.

More: <https://is.muni.cz/auth/publication/829949/en>

16. [Sharing the expert medical experience with medical students and specialists](#)

HRTOŇOVÁ, Nina, [Aleš ROČEK](#) and [Michal JAVORNÍK](#). Sharing the expert medical experience with medical students and specialists. In *10th INTERNATIONAL SCIENTIFIC CONFERENCE VIRTUAL UNIVERSITY VU'09*. Bratislava: E-ACADEMIA SLOVACA N: O., 2009. 5 pp. ISBN 978-80-89316-11-3.

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 1/4/2015 11:36.

More: <https://is.muni.cz/auth/publication/930375/en>

2008

17. [MeDiMed - medicínská obrazová data v praxi a ve výuce](#)

HRTOŇOVÁ, Nina, [Aleš ROČEK](#) and [Vladimír ZATLOUKAL](#). MeDiMed - medicínská obrazová data v praxi a ve výuce. In *Distanční vzdělávání v České republice - současnost a budoucnost, V. národní konference, Sborníknotací (tištěný) a příspěvků (CD-ROM)*. 1st ed. Ústí nad Labem: PdF UJEP Ústí nad Labem, 2008. 6 pp. ISBN 978-80-86302-43-0.

Keywords in English: medical image information, database, collaborative environment, DICOM, PACS, e-learning, long-life learning

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 1/4/2015 11:38.

More: <https://is.muni.cz/auth/publication/771645/en>

18. [MeDiMeD - retrieval of medical educational information in prenatal diagnostics](#)

HRTOŇOVÁ, Nina, Eva RAČANSKÁ and [Aleš ROČEK](#). MeDiMeD - retrieval of medical educational information in prenatal diagnostics. In *Virtual University, 9th International Conference*. 1st ed. Bratislava, 2008. 5 pp. ISBN 978-80-89316-10-6.

Name in Czech: MeDiMed - zpřístupnění medicínských obrazových informací v prenatální diagnostice

Type of proceedings: pre-proceedings

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 1/4/2015 11:38.

More: <https://is.muni.cz/auth/publication/800082/en>

2007

19. [Projekt MEDIMED - regionální archiv medicínských obrazových dat \(The MEDIMED project - regional archive of medicine multimedia data\)](#)

[DOSTÁL, Otto](#), [Michal JAVORNÍK](#), [Martin PETRENKO](#), [Aleš ROČEK](#) and [Karel SLAVÍČEK](#). Projekt MEDIMED - regionální archiv medicínských obrazových dat (The MEDIMED project - regional archive of medicine multimedia data). In *Širokopásmové sítě a jejich aplikace*. Olomouc: CESNET,z.s.p.o.a UP Olomouc, 2007. p. 110-114. ISBN 978-80-244-1687-8.

Name (in English): The MEDIMED project - regional archive of medicine multimedia data

Use of computers, robotics and its application. Czech. Czech Republic.

Keywords in English: PACS;MEDIMED;DICOM

International impact: yes

Reviewed: yes

Changed by: Ing. Aleš Roček, Ph.D., učo 205054. Changed: 1/4/2015 11:40.

More: <https://is.muni.cz/auth/publication/747633/en>