

# Full publications list

V. Chudáček

updated on 10.05.2017

## Journal papers

- Doret, M. - Spilka, J. - Chudáček, V. - Gonçalves, P. - Abry, P.  
**Fractal Analysis and Hurst Parameter for Intrapartum Fetal Heart Rate Variability Analysis: A Versatile Alternative to Frequency Bands and LF/HF Ratio** In: PLoS ONE, 10(8), 2015.
- Hruban, L. - Spilka, J. - Chudáček, V. - Janků, P. et al.  
**Agreement on CTG intrapartum recordings between expert-obstetricians** In: Journal of Evaluation in Clinical Practice, 2015, 20(4)
- Karvelis, P. - Spilka, J. - Georgoulas, G. - Chudáček, V. - Stylios, C. - Lhotská L.  
**Combining Latent Class Analysis Labeling with Multiclass Approach for Fetal Heart Rate Categorization** In: Physiological Measurement 2015, vol. 36, 1001-1024
- Chudáček, V. - Spilka, J. - Burša, M. - Janků, P. - Hruban, L. - et al.  
**Open Access Intrapartum CTG Database** In: BMC Pregnancy and Childbirth [online]. 2014, vol. 14, no. 1, art. no. 16, Internet: <http://www.biomedcentral.com/1471-2393/14/16>. ISSN 1471-2393.
- Chudáček, V. - Andén, J. - Mallat, S. - Abry, S. - Doret, M.  
**Scattering Transform for Intrapartum Fetal Heart Rate Variability Fractal Analysis: A Case-Control Study** In: IEEE Transactions on Biomedical Engineering. 2014, vol. 61, no. 4, art. no. 6679254, p. 1100-1108. ISSN 0018-9294.
- Spilka, J. - Chudáček, V. - Janků, P. - Hruban, L. - Burša, M. - et al.  
**Analysis of Obstetricians' Decision making on CTG Recordings** In: Journal of Biomedical Informatics. 2014, vol. 51, p. 72-79. ISSN 1532-0464.
- Burša, M. - Lhotská, L. - Chudáček, V. - Spilka, J. - Janků, P. - et al.  
**Information Retrieval from Hospital Information System: Increasing Effectivity Using Swarm Intelligence** In: Journal of Applied Logic. 2014, vol. 13, no. 2, Part A, p. 126-137. ISSN 1570-8683.
- Spilka, J. - Chudáček, V. - Koucký, M. - Lhotská, L. - Huptych, M. - et al.  
**Using Nonlinear Features for Fetal Heart Rate Classification** In: Biomedical Signal Processing and Control. 2012, vol. 4, no. 7, p. 350-357. ISSN 1746-8094.
- Chudáček, V. - Spilka, J. - Janků, P. - Koucký, M. - Lhotská, L. - et al.  
**Automatic Evaluation of Intrapartum Fetal Heart Rate Recordings: A Comprehensive Analysis of Useful Features** In: Physiological Measurement. 2011, vol. 32, no. 8, p. 1347-1360. ISSN 0967-3334.
- Kos, P. - Varga, F. - Handl, M. - Kautzner, J. - Chudáček, V. - et al.  
**Correlation of Dynamic Impact Testing, Histopathology and Visual Macroscopic Assessment in Human Osteoarthritic Cartilage** In: International Orthopaedics. 2011, vol. 35, no. 1, p. 1733-1739. ISSN 0341-2695.
- Chudáček, V. - Georgoulas, G. - Lhotská, L. - Stylios, C. - Petřík, M. - et al.  
**Examining Cross-Database Global Training to Evaluate Five Different Methods for Ventricular Beat Classification** In: Physiological Measurement. 2009, vol. 30, no. 7, p. 661-677. ISSN 0967-3334.

## Papers in proceedings

- Abou Khashabh, I. - Chudacek, V. - Huptych, M.,  
**Univariate Analysis of Prenatal Risk Factors for Low Umbilical Cord Artery pH at Birth** Information Technology in Bio- and Medical Informatics Book Series: Lecture Notes in Computer Science, 2016, Volume: 9832, Pages: 186-191
- Spilka, J. - Chudacek, V. - Huptych, M. - et al.  
**Intrapartum Fetal Heart Rate Classification: Cross-Database Evaluation**, XIV Mediterranean Conference on Medical and Biological Engineering and Computing, 2016, Volume: 57 Pages: 1193-1198
- Stylios, C. D.; Georgoulas, G.; Karvelis, P.; et al.  
**Least Squares Support Vector Machines for FHR Classification and Assessing the pH Based Categorization**, XIV Mediterranean Conference on Medical and Biological Engineering and Computing, 2016 Volume: 57 Pages: 1205-1209
- Georgoulas, G. - Spilka, J. - Karvelis, P. - Chudáček, V. - Lhotská, L. - et al.  
**A Three Class Treatment of the FHR Classification Problem Using Latent Class Analysis Labeling** In: Proceedings of 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Piscataway: IEEE, 2014, p. 46-49. ISBN 978-1-4244-7929-0.
- Janičková, T. - Chudáček, V. - Spilka, J.  
**Evaluation of Fetal Heart Rate Recordings Based on Clustering** In: Computing in Cardiology - 41st Annual Conference Computing in Cardiology. Piscataway: IEEE, 2014, p. 621-624. ISSN 2325-8861.
- Huptych, M. - Chudáček, V. - Hruban, L. - Janků, P. - Lhotská, L.  
**Aplikace Elektronické Porodní Knihy** In: Sborník příspěvků MEDSOFT 2014. Praha: Creative Connections, 2014, s. 55-65. ISSN 1803-8115. ISBN 978-80-86742-38-0.
- Spilka, J. - Georgoulas, G. - Karvelis, P. - Chudáček, V. - Lhotská, L. - et al.  
**Discriminating Normal from Abnormal Pregnancy Cases Using an Automated FHR Evaluation Method** In: Artificial Intelligence: Methods and Applications. Heidelberg: Springer, 2014, p. 521-531. ISBN 978-3-319-07063-6.
- Chudáček, V. - Talmon, R. - Andén, J. - Mallat, S. - Coifman, R. - et al.  
**Low Dimensional Manifold Embedding for Scattering Coefficients of Intrapartum Fetal Heart Rate Variability** In: Proceedings of 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Piscataway: IEEE, 2014, p. 6373-6376. ISBN 978-1-4244-7929-0.
- Burša, M. - Lhotská, L. - Chudáček, V. - Spilka, J. - Janku, P. - et al.  
**Visualization in Information Retrieval from Hospital Information System** In: Soft Computing Models in Industrial and Environmental Applications. Heidelberg: Springer, 2013, p. 459-467. ISSN 2194-5357. ISBN 978-3-642-32921-0.
- Lhotská, L. - Kužílek, J. - Chudáček, V. - Novák, P. - Novák, D. - et al.  
**Case Studies of Students' Involvement in Research** In: Proceedings of the 24th Annual Conference on Proceedings of the 24th Annual Conference on European Association for Education in Proceedings of the 24th Annual Conference on European Association for Education in p Electrical and Information Engineering. Piscataway: IEEE, 2013, p. 204-209. ISBN 978-1-4799-0043-5.
- Spilka, J. - Georgoulas, G. - Karvelis, P. - Oikonomou, V.P. - Chudáček, V. - et al.  
**Automatic Evaluation of FHR Recordings from CTU-UHB CTG Database** In: Information Technology in Bio- and Medical Informatics, ITBAM 2013. Heidelberg: Springer, 2013, p. 47-61. ISSN 0302-9743. ISBN 978-3-642-40092-6.
- Lhotská, L. - Burša, M. - Huptych, M. - Chudáček, V. - Havlík, J.  
**Interoperability of Medical Devices and Information Systems** In: Handbook of Research on ICTs for Human-Centered Healthcare and Social Care Services (2

- Volumes). Hershey, Pennsylvania: IGI Global, 2013, p. 749-762. ISBN 978-1-4666-3986-7.
- Burša, M. - Lhotská, L. - Chudáček, V. - Spilka, J. - Zach, L.  
**Practical Problems in Hospital Information System Information Retrieval**  
In: Zborník konferencie Trendy v biomedicínskom inžinierstve 2013. Košice: Technical University of Kosice, 2013, p. 143-144. ISBN 978-80-8086-208-4.
- Spilka, J. - Chudáček, V. - Burša, M. - Zach, L. - Huptych, M. - et al.  
**Stability of Variability Features Computed from Fetal Heart Rate with Artificially Infused Missing Data** In: Computing in Cardiology 2012. New York: IEEE, 2012, p. 1-4. ISSN 2325-8861. ISBN 978-1-4673-2074-0.
- Burša, M. - Lhotská, L. - Chudáček, V. - Spilka, J. - Janku, P. - et al.  
**Practical Problems and Solutions in Hospital Information System Data Mining** In: Information Technology in Bio- and Medical Informatics. Heidelberg: Springer, 2012, p. 31-39. ISSN 0302-9743. ISBN 978-3-642-32394-2.
- Burša, M. - Lhotská, L. - Chudáček, V. - Huptych, M. - Spilka, J. - et al.  
**Obstetric Medical Record Processing and Information Retrieval** In: Electronic Healthcare. Dordrecht: Springer, 2012, p. 26-33. ISSN 1867-8211. ISBN 978-3-642-29261-3.
- Lhotská, L. - Macků, D. - Chudáček, V. - Huptych, M. - Havlík, J. - et al.  
**Ethical and Legal Issues in Telemedicine** In: Proceedings of IFA 11th Global Conference on Ageing - Book of Abstracts. 2012, art. no. 851, p. 224.
- Odstřčilík, T. - Kužílek, J. - Chudáček, V. - Lhotská, L.  
**Scoring System for 12 Lead ECG Quality Assessment** In: Computing in Cardiology 2012. New York: IEEE, 2012, p. 1-3. ISSN 2325-8861. ISBN 978-1-4673-2074-0.
- Burša, M. - Lhotská, L. - Chudáček, V. - Spilka, J. - Janků, P. - et al.  
**Effective Free-Text Medical Record Processing and Information Retrieval**  
In: IFMBE Proceedings: World Congress on Medical Physics and Biomedical Engineering. Heidelberg: Springer, 2012, vol. 39, p. 1305-1308. ISSN 1680-0737. ISBN 978-3-642-29304-7.
- Huptych, M. - Chudáček, V. - Janků, P. - Lhotská, L.  
**An Application for Obstetrics and Neonatology: Electronic Labor Book** In: IFMBE Proceedings: World Congress on Medical Physics and Biomedical Engineering. Heidelberg: Springer, 2012, vol. 39, p. 1257-1259. ISSN 1680-0737. ISBN 978-3-642-29304-7.
- Zach, L. - Chudáček, V. - Huptych, M. - Spilka, J. - Burša, M. - et al.  
**CTG Annotator - Novel Tool for Better Insight into Expert-obstetrician Decision Making Processes** In: IFMBE Proceedings: World Congress on Medical Physics and Biomedical Engineering. Heidelberg: Springer, 2012, vol. 39, p. 1280-1282. ISSN 1680-0737. ISBN 978-3-642-29304-7.
- Lhotská, L. - Burša, M. - Huptych, M. - Chudáček, V. - Havlík, J.  
**Standardization and Interoperability: Basic Conditions for Efficient Solutions** In: IFMBE Proceedings. Berlin: Springer Science+Business Media, 2011, p. 1140-1143. ISSN 1680-0737. ISBN 978-3-642-23507-8.
- Zach, L. - Chudáček, V. - Spilka, J. - Huptych, M. - Burša, M. - et al.  
**Mobile CTG Fetal Heart Rate Assessment using Android Platform** In: Computing in Cardiology. Piscataway: IEEE, 2011, p. 66. ISSN 0276-6574. ISBN 978-1-4577-0612-7.
- Burša, M. - Lhotská, L. - Chudáček, V. - Huptych, M. - Spilka, J.  
**The Use of Ant Inspired Methods in Hospital Information System Text Mining** In: Sborník 9. česko-slovenské konference. Ostrava: VŠB, 2011, p. 226-227. ISBN 978-80-248-2475-8.
- Chudáček, V. - Spilka, J. - Lhotská, L. - Janku, P. - Koucky, M. - et al.  
**Assessment of Features for Automatic CTG Analysis Based on Expert Annotation** In: Annual International Conference of the IEEE Engineering in Medicine and Biology Society. New York: IEEE, 2011, p. 6051-6054. ISBN 978-1-4244-4122-8.

- Burša, M. - Lhotská, L. - Chudáček, V. - Huptych, M. - Spilka, J. - et al.  
**Ant Inspired Techniques in Textual Information Retrieval from a Hospital Information System** In: Proceedings of the 2011 Third World Congress on Nature and Biologically Inspired Computing. New York: IEEE - Systems, Man, and Cybernetics Society, 2011, p. 428-433. ISBN 978-1-4577-1123-7.
- Chudáček, V. - Zach, L. - Kužílek, J. - Spilka, J. - Lhotská, L.  
**Simple Scoring System for ECG Signal Quality Assessment on Android Platform** In: Computing in Cardiology. Piscataway: IEEE, 2011, p. 125. ISSN 0276-6574. ISBN 978-1-4577-0612-7.
- Kužílek, J. - Huptych, M. - Chudáček, V. - Spilka, J. - Lhotská, L.  
**Data Driven Approach to ECG Signal Quality Assessment using Multistep SVM Classification** In: Computing in Cardiology. Piscataway: IEEE, 2011, p. 126. ISSN 0276-6574. ISBN 978-1-4577-0612-7.
- Burša, M. - Lhotská, L. - Chudáček, V. - Huptych, M. - Spilka, J. - et al.  
**Novel Nature Inspired Techniques in Medical Information Retrieval** In: Information Technology in Bio- and Medical Informatics. Heidelberg: Springer, 2011, p. 31-38. ISSN 0302-9743. ISBN 978-3-642-23207-7.
- Burša, M. - Huptych, M. - Chudáček, V. - Lhotská, L.  
**A Novel Concept of the Database Systems in Medicine and Healthcare Course** In: Workshop 2010. Praha: České vysoké učení technické v Praze, 2010, p. 302-303. ISBN 978-80-01-04513-8.
- Spilka, J. - Kužílek, J. - Chudáček, V. - Lhotská, L. - Hanuliak, M.  
**Using One-Rule Algorithm To Find Optimal Thresholds For Detection Of Inferior Myocardial Infarction** In: Analysis of Biomedical Signals and Images, BIOSIGNAL 2010, Proceedings. Brno: Brno University of Technology, 2010, p. 233-239. ISSN 1211-412X. ISBN 978-80-214-4106-4.
- Chudáček, V. - Spilka, J. - Huptych, M. - Lhotská, L.  
**Comparison of Linear and Non-linear Features for Intrapartum Cardiotocography Evaluation - Clinical Usability vs. Contribution to Classification** In: Proceedings of Biosignal 2010: Analysis of Biomedical Signals and Images. Brno: Brno University of Technology, 2010, p. 369-372. ISSN 1211-412X. ISBN 978-80-214-4106-4.
- Chudáček, V. - Spilka, J. - Huptych, M. - Lhotská, L.  
**Linear and Non-Linear Features for Intrapartum Cardiotocography Evaluation** In: Computing in Cardiology 2010 Preprints. New Jersey: IEEE, 2010, p. 999-1002. ISSN 0276-6574. ISBN 978-1-4244-7318-2.
- Lhotská, L. - Macků, D. - Chudáček, V. - Huptych, M. - Havlík, J.  
**Ethical and Legal Aspects of Patient Data Handling** In: Proceedings of AALIANCE conference 2010. Praha: Ministerstvo školství, mládeže a tělovýchovy ČR, 2010, p. 1.
- Spilka, J. - Chudáček, V. - Kužílek, J. - Lhotská, L. - Hanuliak, M.  
**Detection of Inferior Myocardial Infarction: A Comparison of Various Decision Systems and Learning Algorithms** In: Computing in Cardiology 2010 Preprints. New Jersey: IEEE, 2010, p. 273-276. ISSN 0276-6574. ISBN 978-1-4244-7318-2.
- Chudáček, V. - Spilka, J. - Huptych, M. - Lhotská, L.  
**Automatic Classification of Intrapartum Fetal Heart Rate Recordings - can it compete with experts?** In: Information Technology in Bio-and Medical Informatics. Berlin: Springer, 2010, p. 57-59. ISSN 0302-9743. ISBN 978-3-642-15019-7.
- Chudáček, V. - Lhotská, L. - Georgoulas, G. - Stylios, C.  
**Is it Possible to Distinguish Different Types of ECG-Holter Beats Based Solely on Features Obtained from Windowed QRS Complex?** In: World Congress on Medical Physics and Biomedical Engineering, September 7 - 12, 2009, Munich, Germany. Berlin: Springer Science+Business Media, 2009, p. 918-921. ISSN 1680-0737. ISBN 978-3-642-03881-5.
- Varga, F. - Chudáček, V. - Kos, P. - Lhotská, L. - Držík, M. - et al.

- Retrieval of New Characteristic Features for Description of Cartilage Tissue Properties Using Blunt Impact Testing Approach** In: World Congress on Medical Physics and Biomedical Engineering, September 7 - 12, 2009, Munich, Germany. Berlin: Springer Science+Business Media, 2009, p. 2242-2245. ISSN 1680-0737. ISBN 978-3-642-03881-5.
- Novák, D. - Křemen, V. - Cuesta-Frau, D. - Chudáček, V. - Lhotská, L.  
**Discrimination of Endocardial Electrogram Disorganization Using a Signal Regularity Analysis** In: Proceedings of the 31st Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Piscataway: IEEE, 2009, p. 1812-1815. ISSN 1557-170X. ISBN 978-1-4244-3296-7.
- Spilka, J. - Chudáček, V. - Koucký, M. - Lhotská, L.  
**Assessment of Non-Linear Features for Intrapartal Fetal Heart Rate Classification** In: Proceedings of 9th International Conference on Information Technology and Applications in Biomedicine. Piscataway: IEEE, 2009, ISBN 978-1-4244-5378-8.
- Chudáček, V. - Georgoulas, G. - Huptych, M. - Stylios, Ch. - Lhotská, L.  
**Discriminating between V and N Beats from ECGs Introducing an Integrated Reduced Representation along with a Neural Network Classifier** In: Artificial Neural Networks - ICANN 2009 19th International Conference, Limassol, Cyprus, September 14-17, 2009, Proceedings, Part II. Berlin: Springer, 2009, vol. 2, p. 485-494. ISSN 0302-9743. ISBN 978-3-642-04276-8.
- Chudáček, V. - Huptych, M. - Koucký, M. - Bauer, L. - Spilka, J. - et al.  
**Fetal Heart Rate Data Pre-Processing and Annotation** In: Proceedings of 9th International Conference on Information Technology and Applications in Biomedicine. Piscataway: IEEE, 2009, ISBN 978-1-4244-5378-8.
- Lhotská, L. - Chudáček, V. - Huptych, M.  
**Asistivní technologie a eInclusion jako nástroje pro zlepšení kvality života zdravotně postižených** In: Proceedings of the 8th Czech-Slovak Conference Trends in Biomedical Engineering. Bratislava: Slovak University of Technology in Bratislava, 2009, s. 171-173. ISBN 978-80-227-3105-8.
- Burša, M. - Lhotská, L. - Huptych, M. - Chudáček, V.  
**Nová koncepce předmětu Databázové systémy v medicíně a ve zdravotnictví** In: Proceedings of the 8th Czech-Slovak Conference Trends in Biomedical Engineering. Bratislava: Slovak University of Technology in Bratislava, 2009, s. 310-311. ISBN 978-80-227-3105-8.
- Chudáček, V. - Huptych, M.  
**Výuka předmětu Informační a komunikační technologie ve zdravotnictví v magisterské etapě oboru Zdravotnická technika na 1.LF UK** In: Proceedings of the 8th Czech-Slovak Conference Trends in Biomedical Engineering. Bratislava: Slovak University of Technology in Bratislava, 2009, ISBN 978-80-227-3105-8.
- Chudáček, V. - Petřík, M. - Huptych, M. - Lhotská, L.  
**Fuzzy Rule Based Decision Tree Classification of ECG Holter Beats** In: Advanced Topics in Scattering and Biomedical Engineering. Singapore: World Scientific, 2008, p. 242-253. ISBN 978-981-281-484-5.
- Čepek, M. - Šnorek, M. - Chudáček, V.  
**ECG Signal Classification using GAME Neural Network and its comparison to other classifiers** In: Artificial Neural Networks - ICANN 2008, PT I. Heidelberg: Springer, 2008, p. 768-777. ISSN 0302-9743. ISBN 978-3-540-87535-2.
- Chudáček, V. - Čepek, M. - Koucký, M. - Lhotská, L. - et al.  
**Classification Of Intrapartum Foetal Data** In: Analysis of Biomedical Signals and Images; Biosignal 2008 proceedings. Brno: VUTUM Press, 2008, ISSN 1211-412X. ISBN 978-80-214-3613-8.
- Klíma, M. - Lhotská, L. - Chudáček, V. - Huptych, M. - Husák, M.

- Assistive Technologies: New Challenges for Education** In: IFMBE Proceedings. Berlin: Springer, 2008, p. 2730-2733. ISSN 1680-0737. ISBN 978-3-540-89207-6.
- Chudáček, V. - Spilka, J. - Rubáčková, B. - Koucký, M. - - et al.  
**Evaluation of Feature Subsets for Classification of Cardiotocographic Recordings** In: Computers in Cardiology 2008, Volume 35. Missouri: Computers in Cardiology, 2008, p. 845-848. ISSN 0276-6574.
- Huptych, M. - Chudáček, V. - Georgoulas, G. - Lhotská, L. - Stylios, C.  
**SVM Classification of Holter ECG Beats Using Wavelet Features** In: Advanced Topics in Scattering and Biomedical Engineering. Singapore: World Scientific, 2008, p. 281-288. ISBN 978-981-281-484-5.
- Huptych, M. - Kužílek, J. - Chudáček, V. - Lhotská, L.  
**Softwarový projekt EKG Framework pro výuku počítačového zpracování signálů EKG** In: MEDSOFT 2008. Praha: Agentura Action M, 2008, s. 17-22. ISBN 978-80-86742-22-9.
- Chudáček, V. - Lhotská, L.  
**Processing and visualization of long-term ECG** In: Proceedings of Workshop 2007. Prague: CTU, 2007, ISBN 978-80-01-03667-9.
- Petrík, M. - Chudáček, V. - Lhotská, L.  
**Generalization of Rule-Based Decision Tree To Fuzzy Intervals for ECG-Beat Clustering** In: Proceedings of the 2007 IEEE Signal Processing Society Workshop. Los Alamitos: IEEE Computer Society, 2007, p. 205-210. ISSN 1551-2541. ISBN 1-4244-1566-7.
- Čepeck, M. - Chudáček, V. - Petřík, M. - Lhotská, L. - Georgoulas, G. - et al.  
**Comparison of Inductive Modeling Method to Other Classification Methods for Holter ECG** In: IWIM 2007 - International Workshop on Inductive Modelling. Praha: Czech Technical University in Prague, 2007, ISBN 978-80-01-03881-9.
- Chudáček, V. - Petřík, M. - Georgoulas, G. - Čepeck, M. - Lhotská, L. - et al.  
**Comparison of Seven Approaches for Holter ECG Clustering and Classification** In: Sciences and Technologies for Health. Piscataway: IEEE, 2007, p. 3844-3847. ISBN 1-4244-0788-5.
- Huptych, M. - Chudáček, V. - Lhotská, L.  
**Software pro analýzu EKG a zobrazení povrchových potenciálů srdce do 2D map** In: MEDSOFT 2006 - Sborník příspěvků. Praha: Agentura Action, 2006, s. 57-62. ISBN 80-86742-12-1.
- Huptych, M. - Chudáček, V. - Lhotská, L.  
**Vizualizace srdečních potenciálů z povrchu hrudníku v 2D mapách** In: Telemedicína Brno 2006. Praha: SYMMA a redakce časopisu Sdělovací technika, 2006, s. 18.
- Chudáček, V. - Lhotská, L.  
**Decision Tree for Clustering Holter ECG Beats** In: Proceedings of the 5th European Symposium on Biomedical Engineering. Vienna: International Federation for Medical & Biological Engineering, 2006,
- Chudáček, V. - Lhotská, L. - Stylios, Ch. - Georgoulas, G. - Staviař, M.  
**Comparison of Methods for Premature Ventricular Beat Detection** In: International Special Topics Conference on Information Technology in Biomedicine. Piscataway: IEEE, 2006,
- Chudáček, V. - Lhotská, L. - Huptych, M.  
**Feature Selection in Body Surface Potential Mapping** In: International Special Topics Conference on Information Technology in Biomedicine. Piscataway: IEEE, 2006,
- Chudáček, V. - Lhotská, L.  
**Unsupervised Creation of Heart Beats from Long-term ECG monitoring** In: Analysis of Biomedical Signals and Images - Proceedings of Biosignal 2006. Brno: VUTIUM Press, 2006, p. 199-201. ISSN 1211-412X. ISBN 80-214-3152-0.
- Chudáček, V. - Huptych, M. - Lhotská, L.

- Selection of Important Features for Decision Making on Body Surface Potential Mapping Data** In: Proceedings of the 5th European Symposium on Biomedical Engineering. Vienna: International Federation for Medical & Biological Engineering, 2006,
- Chudáček, V. - Huptych, M. - Novák, D. - Lhotská, L.  
**Automatic QT Interval Measurement Using Rule-Based Gradient Method**  
 In: Computers in Cardiology 2006. Piscataway: IEEE, 2006, ISSN 0276-6547.
- Georgoulas, G. - Stylios, C. - Chudáček, V. - Macaš, M. - Bernardes, J. - et al.  
**Classification of Fetal Heart Rate Signals Based on Features Selected Using the Binary Particle Swarm Algorithm** In: IFMBE Proceedings World Congress on Medical Physics and Biomedical Engineering 2006. Berlin: Springer-Verlag, 2006, vol. 14, p. 1049-1052. ISSN 1727-1983. ISBN 3-540-36839-6.
- Lhotská, L. - Macek, J. - Rieger, J. - Chudáček, V.  
**Intelligent Systems in Medicine** In: Proceedings of Workshop 2005 - Part A,B. Prague: CTU, 2005, p. 820-821. ISBN 80-01-03201-9.
- Chudáček, V. - Huptych, M. - Lhotská, L. - Kittnar, O. - Mlček, M.  
**Feature Extraction in Body Surface Potential Mapping** In: The 3rd European Medical and Biological Engineering Conference - EMBEC'05. Praha: Společnost biomedicínského inženýrství a lékařské informatiky ČLS JEP, 2005, vol. 11, ISSN 1727-1983.
- Chudáček, V. - Hanuliak, M.  
**Techniky shlukování pro účely analýzy signálu z EKG holteru** In: Telemedicína Brno 2005. Brno: SYMMA Reklamní agentura, 2005,
- Stylios, Ch. - Georgoulas, G. - Chudáček, V. - Rieger, J. - Lhotská, L.  
**Methods and Tools for Processing Biosignals: a Survey Paper** In: The 3rd European Medical and Biological Engineering Conference - EMBEC'05. Praha: Společnost biomedicínského inženýrství a lékařské informatiky ČLS JEP, 2005, vol. 11, ISSN 1727-1983.
- Chudáček, V. - Huptych, M. - Lhotská, L. - Kittnar, O.  
**Mapování elektrických potenciálů z povrchu hrudníku - předzpracování a vizualizace** In: Advances in Electrical and Electronic Engineering. 2005, roč. 4, č. 3, s. 132-137. ISSN 1336-1376.
- Chudáček, V. - Hanuliak, M. - Lhotská, L.  
**Clustering of Heartbeats for Automated ECG Holter Analysis** In: The 3rd European Medical and Biological Engineering Conference - EMBEC'05. Praha: Společnost biomedicínského inženýrství a lékařské informatiky ČLS JEP, 2005, vol. 11, ISSN 1727-1983.

## Other publications

- Chudáček, V. - Lhotská, L. (supervisor)  
**Automatic Analysis of Intrapartum Fetal Heart Rate**  
 [PhD Thesis]. Prague: Czech Technical University, 2011. 25 p.
- Chudáček, V. - Huptych, M. - Lhotská, L. - Kittnar, O.  
**Mapování elektrických potenciálů z povrchu hrudníku - předzpracování a vizualizace** In: TRENDS IN BIOMEDICAL ENGINEERING. Žilina: Žilinská univerzita, 2005, s. 46-51. ISBN 80-8070-443-0.
- Lhotská, L. - Chudáček, V. - Huptych, M.  
**ECG Processing**  
 In: Data Mining and Medical Knowledge Management: Cases and Applications. Hershey: IGI Publishing, 2009, p. 137-160. ISBN 978-1-60566-218-3.
- Lhotská, L. - Doležal, J. - Chudáček, V. - Huptych, M. - Burša, M. - et al.  
**Beyond System Integration: Who, What, How, and When** In: Handbook of Ambient Assisted Living - Technology for Healthcare, Rehabilitation and Well-Being. Amsterdam: IOS Press, 2012, p. 763-777. ISBN 978-1-60750-836-6.

