

УНИВЕРЗИТЕТ У БАЊОЈ ЛУЦИ
ФАКУЛТЕТ:



УНИВЕРЗИТЕТ У БАЊОЈ ЛУЦИ
ЕЛЕКТРОТЕХНИЧКИ ФАКУЛТЕТ
БАЊАЛУКА

Број: 89

Датум: 01.02.2017.

ИЗВЈЕШТАЈ КОМИСИЈЕ

*о пријављеним кандидатима за избор наставника и сарадника у
звање*

І. ПОДАЦИ О КОНКУРСУ

Одлука о расписивању конкурса, орган и датум доношења одлуке:

Одлука Сената Универзитета у Бањој Луци, бр. 01/04-2.3742/16 од 07.12.2016.

Ужа научна/умјетничка област:

Општа електротехника

Назив факултета:

Електротехнички факултет

Број кандидата који се бирају

један (1)

Број пријављених кандидата

један (1)

Датум и мјесто објављивања конкурса:

07.12.2016. године, Глас Српске, Бања Лука

Састав комисије:

- а) проф. др Зденка Бабић, редовни професор, Електротехнички факултет, Универзитет у Бањој Луци, председник
- б) проф. др Ирине Рељин, редовни професор, Електротехнички факултет, Универзитет у Београду, члан

в) проф. др Татјана Пешић-Брђанин, ванредни професор, Електротехнички факултет, Универзитет у Бањој Луци, члан

Пријављени кандидати

1. др Алексеј Аврамовић

II. ПОДАЦИ О КАНДИДАТИМА

Први кандидат

а) Основни биографски подаци :

Име (име оба родитеља) и презиме:	Алексеј (Боро и Марија) Аврамовић
Датум и мјесто рођења:	16.02.1984. године, Мостар
Установе у којима је био запослен:	Електротехнички факултет, Универзитет у Бањој Луци
Радна мјеста:	сарадник 2007. асистент 2008-2012. виши асистент 1.10.2012. - данас
Чланство у научним и стручним организацијама или удружењима:	IEEE Circuits and Systems Society, IEEE Industry Application Society, IEEE Signal Processing Society.

б) Дипломе и звања:

Основне студије	
Назив институције:	Електротехнички факултет, Универзитет у Бањој Луци
Звање:	Дипломирани инжењер електротехнике, смјер Електроника и комуникације
Мјесто и година завршетка:	Бања Лука, 09.07.2007.
Просјечна оцјена из цијелог студија:	8,82
Постдипломске студије:	
Назив институције:	
Звање:	
Мјесто и година завршетка:	
Наслов завршног рада:	
Научна/умјетничка област (подаци из дипломе):	
Просјечна оцјена:	
Докторске студије/докторат:	
Назив институције:	Електротехнички факултет, Универзитет у Београду

Мјесто и година одбране докторске дисертација:	Београд, 23.09.2016.
Назив докторске дисертације:	Нискодимензионални просторно-текстуални дескриптори мулгиспектралних слика
Научна/умјетничка област (подаци из дипломе):	Електротехника и рачунарство, Телекомуникације
Претходни избори у наставна и научна звања (институција, звање, година избора)	25.09.2007. сарадник, Електротехнички факултет, Универзитет у Бањој Луци 08.03.2008. асистент, Електротехнички факултет, Универзитет у Бањој Луци 01.10.2012. виши асистент, Електротехнички факултет, Универзитет у Бањој Луци

в) Научна/умјетничка дјелатност кандидата

Радови прије посљедњег избора/реизбора
Оригинални научни радови у часописима међународног значаја:
<ol style="list-style-type: none"> 1. Zdenka Babić, Aleksej Avramović, Patricio Bulić: "An Iterative Logarithmic Multiplier", <i>Microprocessors and Microsystems</i>, Vol 35, issue 1, pp. 23-33, February 2011.
Оригинални научни радови у часописима националног значаја:
<ol style="list-style-type: none"> 1. Aleksej Avramović, Slavica Savić: "Lossless Predictive Compression of Medical Images", <i>Serbian Journal of Electrical Engineering</i>, Volume 8. No.1, pp. 27-36, February 2011. 2. Zdenka Babić, Aleksej Avramović, Patricio Bulić: "An Iterative Logarithmic Multiplier", <i>Electrotechnical Review</i>, Ljubljana Slovenia, 2010. Vol. 77 No. I, pp. 25-30.
Научни радови на научним скуповима међународног значаја, штампани у цјелини:
<ol style="list-style-type: none"> 1. Aleksej Avramović, Vladimir Risojević, "Descriptor Dimensionality Reduction for Aerial Image Classification", <i>Proceedings of the 18th international Conference on Systems, Signals and image Processing</i>, Sarajevo, Bosnia and Herzegovina, pp. 105-108, June 2011. 2. Vladimir Risojević, Aleksej Avramović, Zdenka Babić, Patricio Bulić: "A Simple Pipelined Squaring Circuit for DSP", <i>29th International Conference on Computer Design ICCD 2011</i>, pp. 162-167, Amherst, MA, USA, 2011. 3. Patricio Bulić, Zdenka Babić, Aleksej Avramović: "A Simple Pipelined Logarithmic Multiplier", <i>28th International Conference on Computer Design</i>

ICCD, Amsterdam, Netherlands, 2010.

4. **Aleksej Avramović**, Branimir Reljin: "Gradient Edge Detection Predictor for Image Lossless Compression", In Proceedings of 5th International Symposium ELMAR 2010, pp.131-134, Zadar, Croatia, 2010.
5. Zdenka Babić, **Aleksej Avramović**, Patricio Bulić: "An Iterative Mitchell's Algorithm Based Multiplier", In Proceedings of The IEEE Symposium on Signal Processing and Information Technology, pp. 303-308, Sarajevo, BIH, 2008.

Научни радови на научним скуповима националног значаја, штампани у цјелини:

1. **Aleksej Avramović**: "Lossless Compression of Medical Images Based on Gradient Edge Detection", 19th Telecommunications Forum TELFOR 2011, pp. 1199-1202, Belgrade, Serbia, 2011.
2. **Aleksej Avramović**, Vladimir Risojević, Zdenka Babić, Patricio Bulić, "Identifikacija sistema primjenom algoritma najmanjih srednjih kvadrata sa logaritamskim množenjem", Zbornik radova VIII Simpozijuma Industrijska Elektronika INDEL 2010, Banja Luka, pp. 134-137, Novembar 2010.
3. Patricio Bulić, **Aleksej Avramović**, Zdenka Babić, Vladimir Risojević: "An Approximate Squaring Circuit", In Proceedings of 20th International Electrotechnical and Computer Science Conference ERK, Portorož, Slovenia, Vol.B: 171-174, September 2011.
4. **Aleksej Avramović**: "Predictive-Based Lossless Compression of Medical Images", In Proceedings of 20th International Electrotechnical and Computer Science Conference ERK, Portorož, Slovenia, 2011. Vol. B 167-170.
5. **Aleksej Avramović**, Sinisa Zubić: "Filtarsko povećanje robusnosti algoritama relejne zastite na bazi fazne komparacije", Zbornik radova 55. konferencije za ETRAN, Banja Vrućica, BiH, jun 2011.
6. **Aleksej Avramović**, Zdenka Babić, Marjana Erdelji, Patricio Bulić: "Multipliers in Logarithmic Number Systems", 19th In Proceedings of International Electrotechnical and Computer Science Conference ERK, Portorož, Slovenia, 2010. Vol. B 111-114.
7. **Aleksej Avramović**, Slavica Savić: "Lossless Predictive Compression of Medical [images]", In Proceedings of 19th International Electrotechnical and Computer Science Conference ERK, Portorož, Slovenia, 2010. Vol. B 115-118.
8. **Aleksej Avramović**, Slavica Savić, "Prediktivna kompresija medicinskih slika bez gubitaka", Zbornik radova 54. konferencije za ETRAN, EK 1.5-1-4 Donji Milanovac, Srbija, jun 2010.
9. Slavica Savić, **Aleksej Avramović**: "Prediktivna kompresija 3D medicinskih slika", Infoteh, pp. 939-943, Jahorina, BiH, mart 2010.
10. **Aleksej Avramović**: "Mogućnosti primjene videokonferencijskog sistema u obrazovanju", Zbornik radova 1. naučno-stručnog skupa Informacione tehnologije za e-obrazovanje ITeO, Banja Luka, BiH, oktobar 2009. pp. 181-186.
11. **Aleksej Avramović**, Slavica Savić, Aleksandar Pajkanović: "Kompresija naponskih i strujnih signala prilikom mjerenja kvaliteta elektricne energije", Zbornik radova VII Simpozijuma INDEL, Banja Luka, BiH, 2008. pp. 175-178.

12. Zdenka Babić, **Aleksej Avramović**: "Modifikovani Mičelov algoritam za množenje u logaritamskom brojnom sistemu", Zbornik radova LII Konferencije za ETRAN, EK 2.2-1-3, Palić, Srbija, 2008.

Реализован међународни научни пројекат у својству сарадника на пројекту:

1. **Medical image compression (Компресија медицинских слика)**, учесник. Билатерални пројекат у оквиру научно-технолошке сарадње између Босне и Херцеговине и Словеније. Пројекат суфинансиран од стране Словенске истраживачке агенције ВА/10-11-026 и Министарства цивилних послова Босне и Херцеговине, од 2010. до 2011.

Реализован национални научни пројекат у својству сарадника на пројекту:

1. **Архивирање и претраживање база радиолошких слика**, учесник. Пројекат суфинансиран од стране Министарства науке и технологије Републике Српске, од 2006 до 2008.
2. **RFID технологије**, учесник. Пројекат суфинансиран од стране Министарства науке и технологије Републике Српске, од 2008. до 2010.
3. **Компресија слика без губитака**, учесник. Пројекат суфинансиран од стране Министарства науке и технологије Републике Српске, од 2009. до 2010.

Радови последице последњег избора/реизбора

Оригинални научни радови у водећим научним часописима међународног значаја:

1. Igor Ševo, **Aleksej Avramović**: "Convolutional Neural Network Based Automatic Object Detection on Aerial Images", IEEE Geoscience and Remote Sensing Letters, Vol. 13, Issue 5, pp. 740-744, ISSN: 1545-598X, May 2016. **Abstract**—We are witnessing daily acquisition of large amounts of aerial and satellite imagery. Analysis of such large quantities of data can be helpful for many practical applications. In this letter, we present an automatic content-based analysis of aerial imagery in order to detect and mark arbitrary objects or regions in high-resolution images. For that purpose, we proposed a method for automatic object detection based on a convolutional neural network. A novel two-stage approach for network training is implemented and verified in the tasks of aerial image classification and object detection. First, we tested the proposed training approach using UCMerced data set of aerial images and achieved accuracy of approximately 98.6%. Second, the method for automatic object detection was implemented and verified. For implementation on GPGPU, a required processing time for one aerial image of size 5000 × 5000 pixels was around 30 s.

12 бодова

2. Igor Ševo, **Aleksej Avramović**, Ilango Balasingham, Olle Jakob Elle, Jacob Bergsland, Lars Aabakken: "Edge density based automatic detection of inflammation in colonoscopy videos", Computers in Biology and Medicine, vol. 72, pp. 138-150, Elsevier, 2016.

Abstract— Colon cancer is one of the deadliest diseases where early detection can prolong life and can increase the survival rates. The early stage disease is typically associated with polyps and

mucosa inflammation. The often used diagnostic tools rely on high quality videos obtained from colonoscopy or capsule endoscope. The state-of-the-art image processing techniques of video analysis for automatic detection of anomalies use statistical and neural network methods. In this paper, we investigated a simple alternative model based approach using texture analysis. The method can easily be implemented in parallel processing mode for real-time applications. A characteristic texture of inflamed tissue is used to distinguish between inflammatory and healthy tissues, where an appropriate filter kernel was proposed and implemented to efficiently detect this specific texture. The basic method is further improved to eliminate the effect of blood vessels present in the lower part of the descending colon. Both approaches of the proposed method were described in detail and tested in two different computer experiments. Our results show that the inflammatory region can be detected in real-time with an accuracy of over 84%. Furthermore, the experimental study showed that it is possible to detect certain segments of video frames containing inflammations with the detection accuracy above 90%.

0,3x12 = 4 бода

Оригинални научни радови у научним часописима међународног значаја:

1. **Aleksej Avramović**, Vladimir Risojević: "Block-based semantic classification of high-resolution multispectral aerial images", Signal, Image and Video Processing, Springer, 2014., DOI: 10.1007/s11760-014-0704-x, (Signal, Image and Video Processing, Springer, Vol. 10, Issue 1, pp. 75-84, ISSN 1863-1711, January 2016)

Abstract—In this paper, we compare different approaches for classification of aerial images based on descriptors computed using visible spectral bands as well as additional information obtained from the near infrared band. We also propose different methods for incorporating dimensionality reduction into descriptor extraction process for both global and local texture descriptors aiming at obtaining low dimensional descriptors from multispectral images. Furthermore, we examine classification accuracy in cases when small training sets are used. For evaluation purposes, we use an in-house high-resolution aerial image dataset, with images containing visual and near-infrared spectral bands, as well as UC Merced land-use dataset. We achieve the classification rates of over 90 % on in-house dataset. For UC Merced, we obtain classification accuracy of 91 % which is an improvement of about 3 % compared to the state-of-the-art color SIFT descriptors.

10 бодова

2. **Aleksej Avramović**, Zdenka Babić, Dušan Raič, Drago Strle, Patricio Bulić: "An approximate logarithmic squaring circuit with error compensation for DSP applications", Microelectronics Journal, Elsevier, Vol. 45, Issue 3, pp. 263-271, March 2014.

Abstract—The squaring function is one of the frequently used arithmetic functions in DSP, so an approximation of the squaring function is acceptable as long as this approximation corrupts the bits that are already corrupted by noise, and does not degrade application's performance significantly. Approximation of the squaring function can lead to significant savings in hardware and processing time. Previously proposed approximations of the squaring function include LUT-based solutions, linear interpolation of the squaring function and minimization of combinational logic. This paper proposes approximation based on a simple logarithmic interpolation of a squaring function with a simple logic block, which can be reused for the error compensation. The proposed block performs approximation of the squaring function with a shift operation and a carry-free subtraction. The proposed approximate squarer with one compensation block achieves the average relative error below 1.5% for any bit length, while maintaining a low power consumption. In order to evaluate the device utilization, the propagation delay and power consumption and to compare it with the existing solutions, we have synthesized the proposed squarer and the existing solutions for the standard cell library and 0.25 μ m CMOS process parameters.

0,5x10 = 5 бодова

Оригинални научни радови у часописима националног значаја:

1. **Aleksej Avramović**, Goran Banjac: "On Predictive-Based Lossless Compression of Images with Higher Bit Depths", Telfor Journal, Vol. 4, No. 2, pp. 122 - 127, 2012.

Abstract—Due to the rapidly increasing requirements for data transmission and storage, applications for fast and efficient compression of data have a very important role. Lossless compression must be applied when data acquisition is expensive. For example, lossless image compression must be applied in aerial, medical and space imaging. Besides the requirements for high compression ratios as much as it is possible, lossless image coding algorithms should be as fast as possible. During the late nineties of the previous century, many predictive-based algorithms for lossless compression of 8-bit images were introduced. These algorithms were usually expanded to enable processing of images with higher bit depths. All predictive based algorithms used more or less efficient predictors to remove spatial redundancy in images. This paper gives a comparative analysis of predictor efficiency with special emphasis on images with higher bit depths. A novel predictive-based, lossless image compression algorithm with a simple context-based entropy coder is presented, as well. A comparison with standardized lossless compression algorithms JPEG-LS and JPEG2000 is made on a large set of 12-bit medical images of different modalities and 12-bit and 16-bit natural images. It is shown that the proposed solution can achieve approximately the same bitrates as standardized algorithms even though it is much simpler.

6 бодова

2. **Aleksej Avramović**, Patricio Bulić, Zdenka Babić: "Digital Signal Processing Applications with Iterative Logarithmic Multipliers", Journal of Information Technology and Applications, Vol. 1., No. 2, pp. 83-89, December 2011.

Abstract—Many digital signal processing applications demands a huge number of multiplications, which are time, power and area consuming. But input data is often corrupted with noise, which means that a few least significant bits does not carry usable information and does not need to be processed. Therefore, approximate multiplication does not effects application efficiency when approximation error is less than noise introduced during data acquisition. This fact enables usage of faster and less power-consuming algorithms that is important in many cases where processing includes convolution, integral transformations, distance computations etc. This paper discusses logarithm-based approximate multipliers and squarers, their characteristics and digital signal processing applications based on approximate multiplications. Our iterative multipliers and squarers contain arbitrary series of basic blocks that involves only adders and shifters; therefore, it is not power and time consuming and enables achieving arbitrary accuracy. It was shown that proposed approximate multipliers and squarers can be used in several signal processing applications without decreasing of application efficiency.

6 бодова

Научни радови на научним скуповима међународног значаја, штампани у цјелини:

1. **Aleksej Avramović**: "Evaluation of Descriptor Dimensionality Reduction Methods for Land-Use Classification", In Proceedings of 13th Symposium on Neural Network Applications in electrical Engineering NEUREL 2016, pp. 157-161. Belgrade, Serbia.

Abstract—In case when higher-order statistic is used for local feature aggregation, final descriptor can have very high dimensionality. In this paper different methods for descriptor dimensionality reduction are evaluated for land-use classification. Concretely, aerial image classification accuracy is compared for the cases when dimensionality reduction is made per band with fixed and variable sizes. For both aerial image datasets, experimental results showed that even for 10 to 50 times

reduced descriptor dimensionality, classification performance can be preserved. Moreover, reduction approach with variable-per-band descriptor sizes achieved slightly better results compared with traditional approach that include fixed-per-band descriptor sizes.

5 бодова

2. **Aleksej Avramović**, Igor Ševo, Irini Reljin: "Comparative analysis of texture classification based on low and high order local features", 23th Telecommunications Forum TELFOR 2015, pp. 799-802, Belgrade, Serbia, 2015.

Abstract—The importance of texture for recognition of objects, scenes and events is well-known and used in various computer vision tasks. Until recently, best-performing texture classification algorithms relied on processing of low-level local features and statistical learning based adjustment of classifiers. Convolutional neural networks introduced higher order local features and improved classification results significantly. In this paper, we compared texture classification based on low-level and high order local features. Also, we demonstrated the ability of convolutional networks to learn high order features from one dataset and to efficiently use that knowledge on a different dataset.

5 бодова

3. **Aleksej Avramović**, Vladimir Risojević: "Analysis of spatial partitioning approaches for image classification", In Proceedings of 12th Symposium on Neural Network Applications in electrical Engineering NEUREL 2014, pp. 211-215. Belgrade, Serbia.

Abstract—Spatial partitioning is proven to be beneficial for the tasks of image classification, scene categorization and object recognition. The most popular method to capture rough spatial structure of the scene is spatial pyramid matching. However, spatial pyramid matching results in an image representation that is sensitive to rotations. In this research we investigate the influence of upright and rotated partitions on image classification regardless of the image filtering step. We show that simple combination of rotated spatial partitions improves classification accuracy up to 10% compared to single spatial partition commonly used in spatial pyramid matching.

5 бодова

4. **Aleksej Avramović**, Goran Banjac, Jovan Galić: "Lossless Audio Compression Using Modular Arithmetic and Performance-Based Adaptation", 20th Telecommunications Forum TELFOR 2012, pp. 1256-1259, Belgrade, Serbia, 2012.

Abstract — During the last decade, storage of audio data without losses gained on its importance due to increased necessities for high-quality audio reproduction. The second reason can be found in implementation of systems such as speech recognition which can benefit from lossless data. This paper introduces lossless audio compression algorithm based on modular arithmetic and performance based adaptation. The proposed algorithm can compress audio data in simple mode without adaptation which requires less computation, or with adaptation which is more computationally demanding but has better performance. Comparison of the proposed algorithm with available lossless audio codecs, according to compression ratio, is made on two sets of data. The first set includes various music tracks and the second set is collection of speech recordings.

5 бодова

5. **Aleksej Avramović**, Branko Marović: "Performance of Texture Descriptors in Classification of Medical Images with Outsiders in Database", In Proceedings of 11th Symposium on Neural Network Applications in electrical Engineering, NEUREL 2012, pp. 209 -212, Belgrade, Serbia, September 2012.

Abstract —During the years image classification gained important significance in practice, especially in the fields of digital radiology, remote sensing, image retrieval, etc. Typical algorithm for image classification contains descriptor extraction phase, learning phase and testing phase. Testing phase calculates accuracy of the classifier based on predetermined set of labelled images. This paper analyse performance of texture descriptors combined with SVMs, in the case when test dataset contains images not belonging to any predetermined class. A robustness of texture descriptors on outsiders is analysed, to see if descriptor is able to separate outsiders in specific class. Medical dataset containing various radiology images is used for testing. It was shown that it is possible to separate images not belonging to any class with cost of decreased performance by few percent.

5 бодова

Научни радови на научним скуповима националног значаја, штампани у цјелини:

1. **Aleksej Avramović:** "Colon inflammation detection using local color variations", In Proceedings of 24th International Electrotechnical and Computer Science Conference ERK, Vol. B, pp. 95-98, Portorož, Slovenia, 2015.

Abstract—Recent technology developments enabled an acquisition of large amount of medical data of various modality, which yielded the introduction of numerous methods for automatic analysis of medical data and development of computer aided diagnosis. Colonoscopy and capsule endoscopy are examination procedures in which automatic detection of anomalies can contribute for faster diagnosis. In this paper, a simple method for automatic detection of inflammation in colonoscopy videos, based on local color variation, is presented. Research is based on data captured with Olympus probe, which enabled a detailed view of tissue texture for both inflammatory and healthy tissue. It was shown that a simple and low dimensional feature vector can give classification accuracy of approximately 89%.

2 бода

2. **Aleksej Avramović, Igor Ševo:** "Texture-based automatic polyp detection in colonoscopy videos", CMБЕБИИ, Sarajevo, March 2015.

Abstract—Analysis of colonoscopy, endoscopy and smart pill videos are often used during the diagnostic procedure, so automatic detection of colon polyps, tumors and internal bleeding can be helpful. Automatic video analysis can ease or improve diagnostic process in cases where physician needs to analyze long-duration videos in order to check if there are signs of early tumor stage or bleeding. Automatic detection of regions of interest and video annotation can be used to mark relevant frames and enable faster and more efficient diagnosis. In this paper, a method for texture analysis of colonoscopy video is presented. Different texture descriptors are extracted from regions containing polyps and compared with the texture descriptors taken from the regions of healthy tissue and other non-informative regions. The goal was to systematically assess the possibilities for automatic detection of colon polyps in colonoscopy videos based on their texture.

2 бода

3. **Aleksej Avramović, Goran Banjac:** "Audio Lossless Compression Using Modular Arithmetic and Simple Coding Context", In Proceedings of 21th International Electrotechnical and Computer Science Conference ERK, Vol. B, pp. 91-94, Portorož, Slovenia, 2012.

Abstract—Lossless compression of audio data can have important role in data preserving in many practical implementations. Although many lossless audio compression methods were introduced during the last two decades, there is still a necessity for algorithm improvements. This paper presents a simple algorithm for lossless audio compression based on modular arithmetic and simple and efficient coding context. This algorithm uses simple prediction rather than complex adaptation

methods in order to demonstrate efficiency of modular arithmetic and proposed coding context. It was shown that proposed algorithm has comparable performance as algorithms with the same level of complexity.

2 бода

Реализован међународни научни пројекат у својству сарадника на пројекту:

1. **Automatic annotation of medical videos (Аутоматска анотација медицинских видео записа)**, учесник. Билатерални пројекат у оквиру научно-технолошке сарадње између Босне и Херцеговине и Словеније. Пројекат суфинансиран од стране Словенске истраживачке агенције VI-BA/14-15-03 и Министарства цивилних послова Босне и Херцеговине 19/6-020/961-9/13, од 2014. до 2015.

3 бода

2. **NORBOTECH - NORwegian-BOsnian TECHNOlogy Transfer based on Sustainable Systems Engineering and Embedded Systems in the fields of Cloud Computing and Digital Signal Processing**, учесник. Пројекат суфинансиран од стране Норвешког министарства иностраних послова, од 2012. до 2015.

3 бода

Реализован национални научни пројекат у својству сарадника на пројекту:

1. **Аутоматска класификација покривености и начина коришћења земљишта**, учесник. Пројекат суфинансиран од стране Министарства науке и технологије Републике Српске 06/0-020/961-220/11, од 2012. до 2013.

1 бод

2. **Обрада сигнала у био-нано комуникацијама**, учесник. Пројекат суфинансиран од стране Министарства науке и технологије Републике Српске, од 2013. до 2014.

1 бод

3. **Аутоматска анотација аудио и визуелних садржаја из сензорских мрежа**, учесник. Пројекат суфинансиран од стране Министарства науке и технологије Републике Српске 19/6-020/961-187/14, 2015.

1 бод

4. **Дистрибуирана обрада сигнала и информација**, учесник. Пројекат суфинансиран од стране Министарства науке и технологије Републике Српске 19/6-020/961-37/15, 2016.

1 бод

УКУПАН БРОЈ БОДОВА:

84

г) Образовна дјелатност кандидата:

Образовна дјелатност прије последњег избора/реизбора

Образовна дјелатност после последњег избора/реизбора

Рецензирани универзитетски уџбеник који се користи у земљи (помоћни универзитетски уџбеник):

1. **Алексеј Аврамовић**, Татјана Пешић-Брђанин: "Основи електротехнике 2: Практикум за лабораторијске вјежбе", Електротехнички факултет, Универзитет у Бањој Луци, 2016.

6 бодова

2. **Алексеј Аврамовић**, Татјана Пешић-Брђанин: "Основи електротехнике 1: Практикум за лабораторијске вјежбе", Електротехнички факултет, Универзитет у Бањој Луци, 2015.

6 бодова

УКУПАН БРОЈ БОДОВА:

12

д) Стручна дјелатност кандидата:

Стручна дјелатност кандидата прије последњег избора/реизбора

Реализован национални стручни пројекат у својству сарадника на пројекту:

1. **Испитавање функционисања и техничких карактеристика компонента фискалних система**, учесник. Пројекат суфинансиран од стране Пореске управе Републике Српске и Електротехничког факултета, Универзитета у Бањој Луци, од 2008.

Стручна дјелатност кандидата (после последњег избора/реизбора)

УКУПАН БРОЈ БОДОВА:

0

Укупан број бодова кандидата: 96 бодова

III. ЗАКЉУЧНО МИШЉЕЊЕ

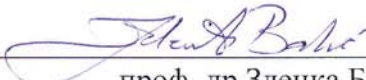
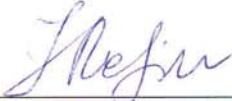
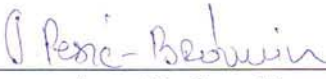
На расписан конкурс за избор једног наставника за ужу научну област Општа електротехника пријавио се један кандидат, др Алексеј Аврамовић. На основу анализе достављене документације Комисија закључује да је кандидат након посљедњег избора у звање објавио: два рада у водећим међународним часописима као коаутор, а као први аутор два рада у међународним часописима, два рада у часописима националног значаја, пет радова штампаних у цјелини на конференцијама међународног и три рада штампана у цјелини на конференцијама националног значаја. Кандидат је аутор два помоћна универзитетска уџбеника. Такође, кандидат је учествовао у реализацији два међународна и четири национална научноистраживачка пројекта.

Према Закону о високом образовању Републике Српске и Правилнику о поступку и условима избора наставника и сарадника на Универзитету у Бањој Луци, др Алексеј Аврамовић испуњава све услове за избор у звање доцента.

Комисија са задовољством предлаже Наставно-научном вијећу Електротехничког факултета и Сенату Универзитета у Бањој Луци да др Алексеј Аврамовић буде изабран у звање *доцент за ужу научну област Општа електротехника*.

У Бањој Луци, 24.01.2017. године

Потпис чланова комисије

1. 
проф. др Зденка Бабић
2. 
проф. др Ирине Рељин
3. 
проф. др Татјана Пешић-Брђанин