

REPORT ON THE SCIENTIFIC FOUNDATION OF THE DOCTORAL DISSERTATION TOPIC

CANDIDATE INFORMATION

Surname, Father's name, Name Tomić, Dragan, Kristina

Date and Place of Birth 18th August 1989 Niš

Bachelor Studies

University University of Niš

Faculty Faculty of Philosophy Niš

Study Program Bachelor Studies in English Language and Literature

Title Bachelor with Honours in Philology

Year of Enrollment 2008

Year of Graduation 2012

Average grade 9.31 (nine and 31/100)

Master Studies

University University of Niš

Faculty Faculty of Philosophy Niš

Study Program Master Studies in English Language and Literature

Title Master in Philology

Year of Enrollment 2012

Year of Graduation 2014

Average grade 9.86 (nine and 86/100)

Scientific area Philological Sciences

Master Thesis Title Temporal Parameters of Spontaneous Speech in Forensic Speaker Identification in Case of Language Mismatch: Serbian as L1 and English as L2

Doctoral Studies

University University of Niš

Faculty Faculty of Philosophy Niš

Study Program Philology

Year of Enrollment 2016

Awarded ECTS points 120

Average grade 9.93 (nine and 93/100)

OVERVIEW OF THE SCIENTIFIC PAPERS OF THE CANDIDATE

No.	Author(s), title, publication, year, volume, pages	Category
1	<p>Tomić, Kristina. "The Effect of Linguistic Context on Speaker Recognition by Earwitnesses in Voice Line-ups" in <i>Language, Literature, Context</i> by Vesna Lopičić and Biljana Mišić Ilić (editors), 2020, pp 135-148 doi: 10.46630/jkk.2020</p> <p><i>Short description (up to 100 words)</i></p> <p><i>This study aimed to determine whether the linguistic context affects the perception of voices. In two listening tasks where the voices were introduced in a series, lay listeners were asked to recognize the speaker's voice presented (1) in meaningful linguistic units, (2) as a modified recording that does not contain complete words and sentences. The results confirmed that listeners are more likely to remember a voice or embark on the recognition task if they can understand what is being said. Thus, it is concluded that voice perception is inextricably linked to the linguistic information we receive by listening to someone.</i></p> <p>The paper belongs to the scientific area of the doctoral dissertation <u>YES</u> NO PARTLY</p>	M14

2	Tomić, Kristina, and Katarina Milenković. "Forenzičko profilisanje govornika iz uzorka na engleskom kao stranom jeziku – analiza kvaliteta vokala." <i>Zbornik Matice srpske za filologiju i lingvistiku</i> 2019, Vol 62 (1), pp 151-170	M24	
	<p>Short description (up to 100 words)</p> <p>The paper contributes to the forensic speaker profiling from the sample in English as a foreign language. The researchers analysed vowel quality in the spontaneous speech of the representatives of two Serbian urban dialects: Niš and Novi Sad. The results showed that the influence of the original articulation base is most prominent in the vowel realised instead of the phoneme /æ/, which is pronounced as more open in the speech of Novi Sad. Also, while the vowels realised instead of phonemes /u:/ and /o/ have a very similar quality for the speakers from Niš, the speakers from Novi Sad tend to centralise the short vowel.</p> <p>The paper belongs to the scientific area of the doctoral dissertation</p> <table> <tr> <td>YES✓</td> <td>NO</td> <td>PARTLY</td> </tr> </table>		YES✓
YES✓	NO	PARTLY	
3	Tomić, Kristina. "Acoustic Analysis of Pitch Accent as a Regional Forensic Marker in Serbian." <i>Facta Universitatis, Series: Linguistics and Literature</i> . 2020, Vol 18 (2), pp 235-256 doi: 10.22190/FULL2002235T	M51	
	<p>Short description (up to 100 words)</p> <p>The paper investigates the acoustic correlates of pitch accent as a regional forensic marker in two urban dialects of Serbian (Niš and Novi Sad). It is confirmed that the tone between stressed and post-stressed vowels is consistently falling in the speech of Nis, while, in the speech of Novi Sad, this tone reflects the tone of the expected pitch accent. Similarly, the interval between the end of stressed and the beginning of post-stressed vowels is rising in the speech of Niš, while in Novi Sad, it, once again, reflects the expected pitch accent. In addition, in Niš, stressed vowels in words where a falling accent is expected are longer than those with a rising accent.</p> <p>The paper belongs to the scientific area of the doctoral dissertation</p> <table> <tr> <td>YES✓</td> <td>NO</td> <td>PARTLY</td> </tr> </table>		YES✓
YES✓	NO	PARTLY	
4	Tomić, Kristina. "Evidentiality Strategies As Distinguishing Markers in Forensic Authorship Analysis." <i>Analiz Filološkog fakulteta</i> , 2019, Vol 31 (2), pp 161-190 doi:10.18485/analiff.2019.31.2.9	M51	
	<p>Short description (up to 100 words)</p> <p>The research presumes that authors have idiosyncratic habits of using the discourse function of evidentiality (pointing to the source of information) in academic writing. First, the researcher identifies and classifies lexical-grammatical expressions of evidentiality and proposes a more comprehensive classification of evidentiality strategies. Then she examines the frequency of evidential expressions and their variability within the samples of one author and between authors. Based on the analysed samples, it is confirmed that individual authors might have tendencies to use specific lexical-grammatical expressions and evidentiality strategies. There may also be a difference in the usage ratio of some strategies. The findings have practical application in authorship analysis.</p> <p>The paper belongs to the scientific area of the doctoral dissertation</p> <table> <tr> <td>YES</td> <td>NO</td> <td>PARTLY✓</td> </tr> </table>		YES
YES	NO	PARTLY✓	
5	Tomić, Kristina, "Međujezična forenzička komparacija glasova – dugoročne frekvencije formanata." <i>Primenjena lingvistika</i> , 2020, Vol 21, pp 7-24 10.18485/primling.2020.21.1	M52	
	<p>Short description (up to 100 words)</p> <p>The research explores voice quality in cross-language forensic speaker comparison. The aim is to determine the robustness of long-term formant frequencies as discriminants when the disputed sample is in English as a foreign language and undisputed in Serbian as a mother tongue. The results indicate significant differences in the long-term formant frequencies between speakers both when they speak Serbian and English. Long-term F4 and F3, in particular, are good discriminants because the interspeaker variation is greater than the intraspeaker variation in both languages for these parameters.</p> <p>The paper belongs to the scientific area of the doctoral dissertation</p> <table> <tr> <td>YES✓</td> <td>NO</td> <td>PARTLY</td> </tr> </table>		YES✓
YES✓	NO	PARTLY	
6	Tomić, Kristina. "Temporal Parameters of Spontaneous Speech in Forensic Speaker Identification in Case of Language Mismatch: Serbian as L1 and English as L2." <i>Comparative Legilinguistics</i> , 2017, Vol 32 (5), pp 117-143. doi:10.14746/cl.2017.32.5.	M53	
	<p>Short description (up to 100 words)</p> <p>The study examines the use of temporal parameters of speech (articulation rate, speech rate, degree of hesitancy, percentage of pauses in speech, average pause duration) in cross-language forensic speaker comparison. Same-speaker and different-speaker pairs were tested using the Bayesian likelihood ratio formula; the disputed sample was in English as a foreign</p>		

language and the undisputed one in Serbian as the mother tongue. The reference population consisted of the values obtained from all the speakers. According to the results presented in the paper, the most robust parameter is the degree of hesitancy, followed by average pause duration.

The paper belongs to the scientific area of the doctoral dissertation **YES**✓ NO PARTLY

NOTE: if the candidate has more than five published papers, please add more rows to this section

CANDIDATE CONDITIONS FULFILLMENT FOR SUBMITTING THE TOPIC APPROVAL REQUEST

The candidate has fulfilled the conditions to submit the doctoral dissertation topic approval request as stipulated in the Law on Higher Education, the University Statute and the Faculty Statute. **YES**✓ NO

Candidate Kristina Tomić, Master Philologist in English Language and Literature, meets all the requirements of the relevant laws and additional regulations, including the *Law on Higher Education of the Republic of Serbia*, the *Statute of the University of Niš*, the *Statute of the Faculty of Philosophy in Niš*, the *Regulations on the thesis preparation process and conditions for the defence of the doctoral dissertation of the University of Niš* (aka the *Regulations*), and the *Regulations on doctoral studies at the Faculty of Philosophy in Niš*.

The candidate has fulfilled all the requirements of the study program of Doctoral academic studies of philology at the Faculty of Philosophy in Niš and has thus gained the right to submit the Doctoral dissertation topic approval request. Furthermore, she has published six papers in philological sciences, one in the M24 category and one in a journal issued by the University of Niš, as stipulated by the *Regulations*. The candidate also submitted biographical data, the list and full texts of the published papers, the name of the proposed supervisor, and the statement of the proposed supervisor on accepting the mentorship. In addition, Kristina Tomić submitted a detailed proposal with elaboration on the topic and research she intends to conduct as part of her doctoral dissertation.

SUPERVISOR CONDITIONS FULFILLMENT

Name and Surname, Title	Tatjana Paunović, PhD, professor
Scientific area and subfield for which they hold position	Philology, English Language and Linguistics
Date of election to the title	28th December 2013
Affiliation	Faculty of Philosophy, University of Niš
E-mail	tatjana.paunovic@filfak.ni.ac.rs

Five most significant papers of the supervisor in the last ten years in the scientific area of the doctoral dissertation

No.	Author(s), title, publication, year, volume, pages	Category
1	Paunović, T. 2012. Qualitative methods in phonetic research – A <i>contradictio in adjecto</i> ? In Paunović & Čubrović, Eds, <i>Exploring English Phonetics</i> , pp 145-161. Newcastle upon Tyne: Cambridge Scholars Publishing. ISBN (10) 1-4438-3515-3, ISBN (13: 978-1-4438-3515-2	M14
2	Paunović, T. 2019. Focus on Focus: Prosodic signals of utterance-level information structure in L1 Serbian, L1 English, and Serbian L2 English. <i>Zbornik Matice srpske za filologiju i lingvistiku</i> LXII/2, pp. 213-238. ISSN 0352-5724 [http://www.maticasrpska.org.rs/category/katalog-izdanja/naucni-casopisi/zbornik-matrice-srpske-za-filologiju-i-lingvistiku/]	M24
3	Paunović, Tatjana V. 2015. Pitch height and pitch range in Serbian EFL students' reading and speaking tasks. <i>Nasleđe, časopis za književnost, jezik, umetnost i kulturu</i> , XII/ 32: 73-94. ISSN 1820-1768 UDC 371.3::811.111'342.1	M51
4	Paunović, T. 2020. EFL students' spontaneous speech: Tonality, Tonicity, and tone. <i>Belgrade English Language and Literature Studies – BELLS</i> , Vol. XII (Special issue in honour of Boris Hlebec on the occasion of his 75th birthday): 51–76. ISSN 1821-3138 (Printed) ISSN 1821-4827 (Online) UDC 811.111+82 ERIH Plus http://www.belgrade.bells.fil.bg.ac.rs/Bells%2012.pdf	M52
5	Paunović, T. 2011. <i>Sounds Serbian? Acoustic properties of Serbian EFL students' speech</i> . In Kitis, E., N. Lavidas, N. Topintzi & T. Tsangalidis (Eds.) <i>Selected Papers from the 19th International Symposium on Theoretical and Applied Linguistics (ISTAL 19)</i> , pp. 357-369. Thessaloniki: Aristotle University of Thessaloniki, School of English, Department of Theoretical & Applied Linguistics. ISBN 978-960-243-675-2	M33

The supervisor fulfills the conditions stipulated in the Law on Higher Education of the Republic of Serbia, the University Statute and the Faculty Statute. **YES**✓ NO

As stipulated in Article 13 of the *Regulations on the thesis preparation process and conditions for the defence of the doctoral dissertation* (The Official Gazette of the University of Niš, 4/2018), the supervisor of the doctoral dissertation in the field of social sciences and humanities is required to have achieved at least 24 academic points in previous ten years, as follows: at least 4 points for a paper in a scientific journal referenced in SSCI or SSCIE, SCI or SCIE, ERIH, HeinOnline, ECOLIBRI and EconLit, or in a scientific journal within M24 category, and at least 20 points for papers within the following categories: M11, M12, M13, M14, M21,

M22, M23, M24, M31, M32, M33, M34 and M51 (whereby the papers within M31, M32, M33 and M34 categories do not contribute more than 20% of the required points).

Professor Tatjana Paunović (PhD) has achieved a total of 30.5 points in the past ten years, which are distributed as follows:

- One paper in the M24 category (4 points);
- Four papers in the M14 category and one paper in the M51 category (23 points);
- Two papers in the M33 category and three articles in the M34 category (3.5 points).

All of the prof. Tatjana Paunović's papers are in the field of philological sciences, primarily English and comparative phonetics, which is relative to the topic of the proposed doctoral dissertation. Therefore, professor Tatjana Paunović fully meets the requirements to be the proposed doctoral dissertation supervisor.

TOPIC ELABORATION

Proposed doctoral dissertation title	Voice Quality in Cross-language Forensic Speaker Comparison
Scientific field	Social Sciences and Humanities
Scientific area	Phylological Sciences
Scientific subfield	English Language and Linguistics
Academic discipline	Phonetics , Forensic Phonetics

1. Scientific Research Subject *(up to 800 words)*

The proposed research approaches the phonetic analysis of voice quality through perceptual and acoustic experiments. It aims to determine whether the acoustic parameters associated with voice quality can be used in forensic speaker comparison in cases when samples of spontaneous speech are recorded using a mobile phone in two different languages (native Serbian and foreign English).

Forensic speakers comparison (FSC) involves comparing a speech sample of an unknown speaker with a sample of a known one in order to assist the courts and relevant investigative bodies in determining whether the same speaker uttered them (Hollien 1990; 2002; Nolan 1997; Jovičić 2001; Rose 2002; Kašić and Đorđević 2009; 2010; French 2017). Until a decade ago, forensic-linguistic and phonetic comparisons of speakers under the circumstances of language mismatch were out of focus since they are highly complex, as languages can differ in potentially important parameters (Rose 2002). However, globalisation and increased mobility of the world's population have contributed to an upsurge in the number of speakers who do not only use their native language in daily communication but also rely on foreign languages, especially English. Therefore, nowadays, there is a growing demand for cross-language speaker comparison, as well as the research in this domain to identify which parameters perform well in these circumstances, since traditional forensic parameters (such as fundamental frequency, pitch range, and segmental features) could be incomparable in different languages (Rose 2002).

As a result, contemporary phonetic research in this area has expanded to analyse a broader range of parameters, including paralinguistic and extralinguistic components of speech, that is, the parameters related to speakers' habits that are not necessarily linguistically conditioned. Some of these include temporal parameters of speech (Tomić 2017) or the parameters conditioned by the anatomy of the human vocal tract, such as long-term formant frequencies and voice quality, which is precisely the subject of the proposed research.

In a broad sense, voice quality encompasses laryngeal and supralaryngeal characteristics of human speech, which in combination create a long-term effect on perception, and make a voice recognisable (Laver 1980; Kašić and Đorđević 2010). The laryngeal characteristics of voice refer to modal and nonmodal phonation, so we have a modal, whispery, creaky, breathy and harsh voice (Laver 1980), and in Serbian, linguists also describe ringing, voice with additional fullness, voice with additional resonance, muffled, shrill and hoarse voice (Kašić and Đorđević 2010). The supralaryngeal characteristics of voice refer to the relative dimensions of the components of the tract (the pharynx, nasal and oral cavities) and the positions of the articulators, i.e. the lips, teeth, tongue and other parts of the vocal tract during speech production (Laver 1991; Kašić and Đorđević 2010).

In the proposed research, through perceptual experiments, expert listeners will evaluate voice similarity through the presence and absence of laryngeal and supralaryngeal characteristics of voice in the mother tongue and foreign language, while lay listeners will give their subjective estimate of voice similarity on a 1-to-10 Likert scale. Furthermore, by performing the acoustic analysis, specific long-term acoustic correlates of voice quality will be examined under the circumstances of language mismatch, and the results will be compared with those obtained through the comparisons of same-language samples.

One of the main challenges of performing forensic speaker comparison is expressing the outcome, which conditions the entire analysis procedure. While some forensic phoneticians opt for a binary statement (X and Y are/are not the same speaker), some for scalar classical probability statements (probable/highly probable

that X and Y are the same speakers), others rely on numerical likelihood ratio calculations and verbal statements (the probability of obtaining these results is much greater/moderately greater if the samples are taken from the same speaker than if they are taken from different speakers) (Champod and Evett 2000; Rose 2002; French 2017).

Likelihood Ratio is the ratio of obtaining the results when considered against two hypotheses: (a) the hypothesis that the samples originate from the same speaker and (b) the hypothesis that they originate from different speakers. This theoretical framework is considered logically correct for quantifying the strength of forensic evidence (Rose 2002; Morrison 2009; French 2017) and is used for other forensic disciplines, such as DNA analysis (Rose 2002). That is why the likelihood-ratio framework is chosen to test the reliability of the forensic phonetic parameters in the proposed research.

The proposed research is relevant for both the contribution to the voice quality theory and forensic phonetic practice as forensic scientists worldwide are recording an increasing number of cases of cross-language forensic voice comparisons (see Künzel 2013; Milne, Kavanagh, van der Vloed and Dellwo 2019). If such work is to be undertaken, there is an obvious need for structured research to identify which parameters perform well in these circumstances.

2. Consistency of the topic with the consulted literature *(up to 200 words)*

The proposed research is innovative because it applies the already established methods of voice comparison to a new type of corpus, the corpus of bilingual speakers, and fully follows contemporary research trends and practices in forensic speech science.

In particular, the research relies on Laver's phonetic description of voice quality (Laver 1980) and established protocols for voice profile analysis (San Segundo, Foulkes, French, Harrison, Hughes, and Kavanagh 2019). Acoustic analysis is conducted using acoustic components of voice quality that have previously proven to be robust discriminants when comparing voice samples in the same language (Nolan 2007; Gold, French and Harrison 2013; Hughes, Cardoso, Harrison, Foulkes, French and Gully 2019). The choice of the methodological framework for calculating probability is highly relevant to modern forensic practice, given that, in the last ten years, an increasing number of forensic laboratories have relied on probabilistic models of voice comparison (Gold and French 2019).

Through the text, and at the end of the application, the candidate cites literature that is pertinent to the issues raised in the elaboration and shows that she is not only well acquainted with the latest theories, methods and trends in forensic speaker comparison but can also notice the gaps and research needs in the field. Therefore, based on the topic elaboration, it can be concluded that the candidate is perfectly consistent in the literature choice relevant to the topic.

3. Research Goals *(up to 500 words)*

The proposed exploratory research aims to examine the similarity of voices when speaking in a native and foreign language and the importance of acoustic parameters of speech employed in the forensic-phonetic analysis of speaker's voice, more specifically, the parameters denoting the voice quality. In the linguistic domain, the research hypothesises that voice quality is a trait that does not depend so much on the language spoken but more on the anatomy of the human body. In the domain of forensic phonetics, the proposed research is based on four main research questions:

1. How similar are the voices of same/different speakers when speaking Serbian and English as perceived by lay listeners?
2. Are the same laryngeal and supralaryngeal speech production settings equally audible when speaking Serbian and English?
3. Can acoustic correlates of voice quality be used as parameters in forensic speaker comparison in samples in the Serbian language recorded using a mobile phone?
4. Can acoustic correlates of voice quality be used as parameters in forensic speaker comparison in conditions of language mismatch with samples recorded using a mobile phone (the disputed sample in English and undisputed in Serbian)?

One possible aim of the proposed research is to confirm the initial hypothesis if the discrepancy in the performance of the tested parameters in two different language contexts proves to be negligible. However, if the results demonstrate that specific parameters have notably weaker performance in conditions of language mismatch, it will provide evidence that voice quality is not entirely linguistically unconditioned.

In the latter case, another possible aim of the proposed study is to answer the following research questions:

- i. Are the acoustic correlates of voice quality more reliable as forensic parameters when applied with samples recorded in a sound booth than with samples recorded using a mobile phone?
- ii. What should the reference population be comprised of when comparing samples in two different languages?

iii. Is foreign language proficiency related to the performance of acoustic correlates of voice quality as forensic parameters?

Answering the first question will allow the selection of the acoustic parameters to be tested in the following stages of the research. First, the performance of the parameters will be tested with the reference population in Serbian, then in English and, finally, in a combination of these values.

Another goal of the proposed research is to examine whether the acoustic parameters of voice quality are related to foreign language proficiency in case language influence on their proposal is observed. Indirectly, thanks to the chosen method of corpus collection, the goal is to determine which voice quality parameters should be avoided in forensic practice when analysing the speech recorded in a mobile phone conversation.

4. Expected results, scientific foundation and contribution of the research *(up to 200 words)*

When it comes to parameters related to the laryngeal characteristics of voice, harmonic amplitude ratios, harmonics-to-noise ratio, the amplitude of the first harmonic to the harmonics closest to one of the formants, vocal jitter, shimmer, voice turbulence index (VTI), soft phonation index (SPI), the candidate does not expect language variation to influence the performance of the selected parameters in FSC significantly. On the other hand, it is anticipated that supralaryngeal characteristics of voice, the long-term formant frequencies, will be more significantly affected by language variation. The candidate underlines that these parameters can nonetheless be employed in FSC, following the results obtained in the pilot research (Tomić and French 2019).

The theoretical contribution of the proposed research will be to determine the extent to which voice quality depends on the language spoken, and a significant contribution of the results will be reflected in documenting empirically established bases for cross-language forensic speaker comparison that would have a wide application in forensic practice internationally. Therefore, even though the number of previous studies on cross-language forensic speaker comparison is meagre, the panel confirms that the goals of the proposed research and the expected results are scientifically well-founded. Furthermore, the value of the proposed research can also be observed on a methodological level because the candidate develops innovative empirical procedures, which can be beneficial to other researchers in their future endeavours.

5. Scientific methods applied *(up to 300 words)*

The proposed research primarily relies on a quantitative methodology. First and foremost, the corpus of spontaneous speech in Serbian and English will be developed. The conversations with the participants will be recorded using a mobile phone, which will enable building a corpus that corresponds to forensic reality. The material will be studied using auditory-acoustic methods and spectrogram analysis.

The similarity of speakers' voices when speaking Serbian and English will be assessed via two perceptual experiments, with expert and lay listeners, respectively. First, the speech of a selected number of participants will be assessed by experts according to an adapted protocol for vocal profile analysis (San Segundo, Foulkes, French, Harrison, Hughes, and Kavanagh 2019). Then, in a separate experiment, lay listeners will evaluate the similarity of same-speaker and different-speaker sample pairs on a 1-to-10 Likert scale.

The acoustic analysis will be performed with the help of appropriate software and scripts with a manual correction to ensure the best possible quality of the results. Since the proposed research is exploratory, the relevant acoustic parameters for measurement and further quantitative analysis will be determined through the initial analysis of the corpus. The obtained numerical values of the acoustic parameters will then be subjected to descriptive statistical analyses and relevant statistical tests. Then, using the Bayesian likelihood ratio formula (Aitken and Lucy 2004), likelihood ratios will be obtained for each analysed parameter in statistical software. The formula's performance will be estimated by calculating the equal error rate (EER) and cost log-likelihood ratio (Cllr). The lower the EER and Cllr values, the higher the biometric system's reliability, and the measured parameter is considered more robust in forensic speaker comparison. Finally, the overall likelihood ratio will be calculated by combining all parameters.

The likelihood ratio calculation procedure includes comparing the voice samples in Serbian to the samples in English for the same-speaker and different-speaker pairs. The reference population is composed of the values obtained from all participants, except those whose voice is being compared. The same procedure will be applied in same-language or control comparisons, enabling us to examine each parameter's efficiency depending on the linguistic context.

By performing comparative analyses, it will be examined whether the language spoken influences the acoustic correlates of voice quality and whether the performance of the analysed parameters in FSC is related to foreign language competency.

The proposed topic is accepted unchanged

YES✓

NO

The final title of the doctoral dissertation

Voice Quality in Cross-language Forensic Speaker Comparison

CONCLUSION (up to 100 words)

The proposed research is highly complex and demanding, but the chosen topic is of great interest to linguistic-forensic phonetics. The candidate shows exceptional scientific maturity, judging by the excellent theoretical foundation of the research proposal, the outstanding knowledge of the relevant contemporary literature and the number and quality of already published smaller-scale research papers in this field. Most importantly, the proposed research is recommended because of a flawlessly conceived and well-designed methodological approach. Given the generally insufficient number of studies in forensic comparison of voices in cases of language mismatch, especially when it comes to comparing Serbian and English, this research will, in addition to scientific linguistic, have a precious applied value for forensic-linguistic phonetic analysis of spoken language.




PANEL INFORMATION

Number of the panel appointment decision issued by the Professional and Scientific Council of the University

8/18-01-008/21-029

Date of the panel appointment

22/11/2021

No.	Name and Surname, Title		Signature
1.	Maja Ivanović, PhD, docent	chairperson	
	General Linguistics	Faculty of Special Education and Rehabilitation, University of Belgrade	
	(Scientific area)	(Affiliation)	
2.	Tatjana Paunović, PhD, professor	supervisor, member	
	Philology, English Language and Linguistics	Faculty of Philosophy, University of Niš	
	(Scientific area)	(Affiliation)	
3.	Peter French, PhD, professor	member	 (P. FRENCH)
	Linguistics, Forensic Speech Science	Dept of Language and Linguistic Science, University of York Forensic speech and acoustics laboratory "JP French Associates"	
	(Scientific area)	(Affiliation)	
4.		member	
	(Scientific area)	(Affiliation)	
5.		member	
	(Scientific area)	(Affiliation)	

Date and Place:

In Niš, Belgrade and York, 10th December 2021