

Табела 1. Подаци о наставницима Факултета техничких наука у Косовској Митровици потребни за унапређење сајта факултета

Име и Презиме	Ранко Бабић
Звање	редовни професор
Катедра	Катедра за електронику и телекомуникације
Стручни назив	Доктор техничких наука из области електротехнике
Ужа научна област	Телекомуникације
Датум избора у звање	25.10.2007. бр. Одлуке 1083/3-4-1
Предмети које наставник држи на основним, мастер и докторским студијама (по акредитацији из 2021. године)	OE21 Телекомуникације 1 OE39 Телекомуникације 2 OE93 Сателитски системи OE 94 Радио комуникације ME 17 Увод у научноистраживачки рад ME 20 Телекомуникационе мреже за приступ ME 43 Човек и мултимедија
Збирни подаци научне, односно уметничке и стручне активности наставника – подаци који ће бити приказани на почетној страни (на сајту факултета) за наставника	
Укупан број радова по категоријама	
Категорија	Број радова
M21	
M22	
M23	
M51	
M52	
M53	
M33	
M63	
Цитираност	
Укупан број цитата: 3+7	
h-index: 1	
Веб-сајтови и друштвене мреже (Scopus, ORCID, Google scholar, Research gate ...)	
Research gate	
Библиографија – подаци који ће се приказати за наставника кликом на одговарајући линк на сајту факултета	
Радови у часописима са SCI листе	
Ranko Babić, Lidija Babić, Branimir Jakšić, New aspect of transition between line and continuous spectrum and its relation to seismic influence on structures, (Ref. No:25.977.170804), Scientia Iranica, International Journal for Science and Technology, Transactions D: Computer Science and Engineerig & Electrical Engineering, 2018, DOI: 1024200/SCI.2018.20326 (https://www.researchgate.net/publication/327109888_New_aspect_of_transition_between_line_and_continuous_spectrum_and_its_relation_to_seis)	

[mic influence on structures](#))

- o Ranko V. Babić, Lidija G. Babić, and Branimir S. Jakšić, Rearranged Waveform Envelope as a New Attribute of Seismic Signal, (Preprint, ResearchGate, October 2020, in the final stage of review procedure in Scientia Iranica, International Journal for Science and Technology, Transactions D: Computer Science and Engineering & Electrical Engineering)
(https://www.researchgate.net/publication/344831762_R_Babic_New_Attribute_of_Seismic_Signal_-_for_RG)
- o Ranko Babić, Lidija Babić, Vladana Babić, A grapho-numerical method for size normalization of contours applied to analysis of metacarpal morphological variability, (Preprint, ResearchGate, October 2020, DOI: [10.13140/RG.2.2.25991.83360](https://doi.org/10.13140/RG.2.2.25991.83360)) (u početnoj fazi recenzije)
- o https://www.researchgate.net/publication/344831809_A_grapho-numerical_method_for_size_normalization_of_contours_applied_to_analysis_of_metacarpal_morphological_variability
- o Ranko Babić, Lidija Babić, Vladana Babić, Alignment methods for normalized sample of metacarpal contours as a basis for intrinsic variability morphometrics (Preprint, ResearchGate, October 2020, DOI: [10.13140/RG.2.2.29347.27688](https://doi.org/10.13140/RG.2.2.29347.27688)) (u početnoj fazi recenzije)
- o https://www.researchgate.net/publication/344831983_Alignment_methods_for_normalised_sample_of_metacarpal_contours_as_a_basis_for_intrinsic_variability_morphometrics

Радови у часописима ван SCI листе (M24)

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- Ranko Babić, "Cursive word row segmentation based on scanning skew slots", Journal of Automatic Control, University of Belgrade, Vol. 5 (Supplement) 2005.
(https://www.researchgate.net/publication/47368823_Cursive_word_row_segmentation_based_on_scanning_Skew_slots)
- Babic, R., A new approach to representation of planar contour morphology through the system of 2D geometrical primitives, BAM-Journal-1460/98 - LXXXV-A, pp.145-152
- Babic, R., A mathematical model for parametric and functional description of composite growth of organisms, BAM-Journal-1509/98 - LXXXV-B, pp.321-328
- R. Babic, A method of adaptive rotation-free structural coding of handwritten characters, *Jornal of Automatic Control*, vol.XI(1), 2001, Belgrade
- Ranko Babić, Konstrukcija pokretača ispitne seizmičke platforme, Zbornik radova građevinskog fakulteta Univerziteta u Novom Sadu, E.III, 15, YU ISSN 0352-6852, Subotica 2007.
- Lidija Babic, Ranko Babic, "Use of discrete elements for soil modeling", Zbornik radova građevinskog fakulteta Univerziteta u Novom Sadu, E.III, 15, YU ISSN 0352-

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- Ranko Babić, Energetska efikasnost vozova velikih brzina, Železnice, ISSN 0350-5138, VOL. 62, No.4, pp. 211-228, December 2017.
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- (eng. version on ResearchGate: Methods of improving energy efficiency in high speed trains, October 2020, DOI: [10.13140/RG.2.2.24733.54242](https://doi.org/10.13140/RG.2.2.24733.54242))
(https://www.researchgate.net/publication/344831642_R_Babic_Energy_Efficiency_of_High-speed_Trains_-_for_RG)
- Ranko Babić, Influence of geo-social factors on transport modal share in USA and Japan (2018) (Preprint, ResearchGate, October 2020, DOI: [10.13140/RG.2.2.18861.51682](https://doi.org/10.13140/RG.2.2.18861.51682))
(https://www.researchgate.net/publication/344832336_INFLUENCE_OF_GEO-SOCIAL_FACTORS_ON_TRANSPORT_MODAL_SHARE_IN_USA_AND_JAPAN)
- Babic, R., Ljamic, A., Mathematical indicators of the spiral growth of Ammonite with its mechanical and biological interpretation, *University Thought* vol. 5, No 3, 1998.
- Babic, R., Ljamic, A., Mechanical modeling of Theropoda/Tetanurae gait with the extension in frequency domain, *University Thought* vol. 4, No 1, 1997.

Радови са међународних конференција

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(https://www.researchgate.net/publication/344832093_NEW_DESIGN_OF_TUNNEL_HOODS_FOR_HIGH_SPEED_TRAINS)
2. Ranko Babić, Branimir Jakšić, Siniša Ilić, Mile Petrović, *Probing of Student Population Attitude Towards Content of DBBT Master Study as an Indicator of Trends in IT Labor Market*, Book of Proceedings - International Scientific Conference on Information Technology and Data Related Research - Synthesis 2017, Singidunum University, Belgrade, Serbia, April 21, 2017, pp. 364-368. ISBN: 978-86-7912-657-3, UDC: 007:004(082), 004.7:339(082), 62(082), DOI: 10.15308/Sinteza-2017-364-368
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3. Ranko Babić, Methods of improving energy efficiency in high speed trains, VI International Symposium New Horizons 2017 of Transport and Communications, Doboj, 2017, Proceedings of ISBN 978-99955-36-66-4, pp. 332-341, UDK 656.1/.2(082)(0.034.4)
4. Ranko Babić, Lidija Babić, Some Aspects of Dynamic Train-Track Interaction in Planning High Speed Rail Way routes, Seventh International Conference Geotechnics in Civil Engineering, Sabac 2017., Proceedings ISBN 978-86-99997-10-5, COBISS.SR-ID 249512716 2017UD:625.113 pp. 573-580
5. https://www.researchgate.net/publication/344832225_SOME_ASPECTS_OF_DYNAMIC_TRAIN-TRACK_INTERACTION_IN_PLANNING_HIGH_SPEED_RAILWAY_ROUTES
6. Ranko BABIĆ, Nenad PETROVIĆ, Location optimality evaluation of track radio stations in Serbian railway network, Proceedings of XVII Scientific-Expert Conference

- on Railways, RAILCON 2016, Niš, ISBN 978-86-6955-060-8, pp. 153-156.
7. Ranko BABIĆ, Concept of portable information system for tracing train drive profile, Proceedings of XVII Scientific-Expert Conference on Railways, RAILCON 2016, Niš, ISBN 978-86-6955-060-8, pp. 165-168.
 8. Ranko BABIĆ, A proposal of LED module design in railway signals, Proceedings of XVI Scientific-Expert Conference on Railways, RAILCON 2014, Niš
(https://www.researchgate.net/publication/344832200_A_PROPOSAL_OF_LED_MODULE_DESIGN_IN_RAILWAY_SIGNALS)
 9. Ranko Babić, „Statistical model of grains aggregation and its anisotropic strain behaviour“, Proceedings of Int. Conference VSU 2006, 22-23 May 2006, Sofia, Bulgaria.
 10. Ranko Babić, “Neurobiological aspects of content scanning process in sensory systems”, NEUREL 2006, September 25-27, 2006, Belgrade.
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 11. Ranko Babić, “A MEMS Based Architecture of Artificial Neuron”, NEUREL 2004, September 23-25, 2004, Belgrade.
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 12. Ranko Babić, „Optical Analogy of Clariut Theoreme in Geodesic Lens Analysis“, TELSIX 2003, September 19-21, 2003, Nis.
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 13. Ranko Babić, „Optical Switch with Metalic Waveguide and Torsion MEMS Mirror“, TELSIX 2003, September 19-21, 2003, Nis.
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 17. Babić, R., Ljamic, A., An algorithm for 2D compression of image content relying on extraction and coding of areas with uniform brightness, *8th Conf. and Exhib. on TV and Audio Technologies*, May 1998, Budapest, Hungary
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19. Babic, R. Indirect examination of random number generator's properties through its ergodicity, *AMSE Conf. on Comm., Signals and Systems, CSS'96*, September 1996, Brno, Czech Republic
20. Babic, R., The class-prototype extraction from finite number of input patterns as a generalization of their distortion-level ordering, *SPIE Conference on Science of Artificial Neural Networks II*, Orlando, Florida, USA, April 1993. DOI: [10.1117/12.152631](https://doi.org/10.1117/12.152631), https://www.researchgate.net/publication/252469711_Class-prototype_extraction_from_a_finite_number_of_input_patterns_as_a_generalization_of_their_distortion-level_ordering
21. Babic, R., Model of the Spinal Frog Neural System Underlying the Wiping Reflex, *The Third Australian Conference On Neural Networks*, Canberra, Australia, February 1992.
22. Babic, R., Parallel processing system with fixed connections as a new approach to handwritten digit recognition, *The International Conference on Artificial Neural Networks*, Brighton, United Kingdom, September 1992.
23. Babic, R., Aspects of Reconfigurable Neural Networks, *SPIE Conference on Applications of Artificial Neural Networks*, Orlando, Florida, USA, April 1991, DOI: [10.1117/12.44987](https://doi.org/10.1117/12.44987), https://www.researchgate.net/publication/252778612_Aspects_of_reconfigurable_neural_networks
24. Babic, R., Model of Hypothetical Visual Perceptive System, International Neural Network Conference, *INNC 90* Paris, July 1990, DOI: [10.1007/978-94-009-0643-3_138](https://doi.org/10.1007/978-94-009-0643-3_138), https://www.researchgate.net/publication/312688963_Model_of_Hypothetical_Visual_Perceptive_System

Радови са домаћих конференција

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2. Siniša Ilić, Branimir Jakšić, Slobodan Bojanić, Ranko Babić, Mile Petrović, *Servisi plaćene televizije u sistemima digitalne zemaljske televizije u Evropi*, Book of Proceedings - International Scientific Conference on Information Technology and Data Related Research - Synthesis **2017**, Singidunum University, Belgrade, Serbia, April 21, 2017, pp. 381-387. ISBN: 978-86-7912-657-3, UDC: 007:004(082), 004.7:339(082), 62(082), DOI: 10.15308/Sinteza-2017-381-387 (<http://portal.sinteza.singidunum.ac.rs/Media/files/2017/381-387.pdf>)
3. Ranko Babić, "Taster sa dvostrukim zvonom za kompaktne membranske tastature", *TELFOR 2006*, 26-28. novembar 2006., Beograd (eng. Key button with double rubber skirt for compact membrane keyboards)
4. Ranko Babić, "Predlog koncepta višenamenske ikonice i pokazivača u 3D grafičkom korisničkom interfejsu", *IT 2006*, 25-27. februar 2006., Žabljak. (eng. Proposal of concept of a multi-purpose icon and pointer in a 3D graphical user interface)
5. Ranko Babić, „Stohastički model ponašanja mobilnih korisnika kao osnova procesa formiranja ad hoc mreža“, *Zbornik radova 50. Konferencije ETRAN*, Beograd, Jun 2006, Vol. II. (eng. Stochastic model of mobile user behavior as a basis for the process of forming ad hoc networks)
6. Ranko Babić, „Elektrooptički komutator sa cirkularnom kumulacijom ugla refleksionih zraka“, *TELFOR 2003*, 25-27. novembar 2003., Beograd (eng. Electro-

- optical commutator with circular cumulation of reflective beam angles)
7. Ranko Babić, „Varijabilni difrakcioni distributor svetlosti“, *TELFOR 2003*, 25-27. novembar 2003., Beograd (eng. Variable diffraction light distributor)
 8. Ranko Babić, „Sočivo sa promenljivom geometrijom“, *TELFOR 2003*, 25-27. novembar 2003., Beograd (eng. Lens with variable geometry)
 9. Ranko Babić, „Dinamika i entropija procesa u ćeliji ad hoc mreže“, *XLVI konferencija ETRAN-a*, 3-6 jun 2002., Teslić (eng. Dynamics and entropy of processes in ad hoc network cell)
 10. L. Babic, R. Babic, „A simple hydrodynamical G-force sensor“, *INDEL-2002*, 14-15. novembar 2002, Banja Luka.
 11. Ranko Babić, „Jastučasti hidraulični senzor sa jednoparametarskom regulacijom sile stezanja“, *INDEL-2002*, 14-15. novembar 2002, Banja Luka. (eng. Pillow hydraulic sensor with one-parameter clamping force regulation)
 12. Ranko Babić, „Optički komutator sa precesionim MEMS ogledalom“, *TELFOR 2002*, 26-28 novembar 2002., Beograd (Optical switch with MEMS precession mirror)
 13. Ranko Babić, „Projekciona virtuelna tastatura sa kardansko-torzionim MEMS ogledalom“, *TELFOR 2002*, 26-18 novembar 2002., Beograd (eng. Projection virtual keyboard with cardan-torsion MEMS mirror)
 14. R. Babić, Neke odlike simboličkih sistema izražavanja informacija, *VII Konferencija IT*, februar 2002., Žabljak (eng. Some features of symbolic systems for information expression)
 15. R. Babić, Analiza performansi kinematičke virtuelne tastature, *VII Konferencija IT*, februar 2002., Žabljak (eng. Performance analysis of a kinematic virtual keyboard)
 16. R. Babić, Pravilo korespondencije senzor-simbol kod novog rešenja kinematičke virtuelne tastature, *INFOTEH 2002*, mart 2002., Jahorina (eng. Sensor-symbol correspondence for new kinematic virtual keyboard)
 17. R. Babić, Konfiguracije neposrednog interfejsa čovek-uređaj kod mobilnih komunikacionih/procesnih uređaja i pravci njihovog budućeg razvoja, *VI Konferencija IT*, februar 2001., Žabljak (eng. Configurations of direct human-device interface in mobile communication / process devices and directions of their future development)
 18. R. Babić, Ka potpuno stohastičkom generatoru slučajnih brojeva, *XLV Konferencija ETRAN-a*, jun 2001, Arandjelovac (eng. Towards a completely stochastic random number generator)
 19. R. Babic, Functional structure of corporate network and related basic telemedical services in health care center, *TELFOR2001*, November 2001, Belgrade
 20. Babić, R., Mogućnost promene talasne dužine zračenja poluprovodničkog lasera sa raspodeljenom povratnom spregom, *32. Konf. ETAN-a*, Sarajevo 1988. (eng. Possibility of changing the wavelength of semiconductor laser radiation with distributed feedback)
 21. Babić, R., Petrović, R., Numerički metod za analizu prostiranja svetlosti u multimodnom gradijentnom svetlovodu, *Conf. of JUTEL 1986*, Ljubljana, Yugoslavia
 22. Babić, R., Petrović, R., Primena predloženog opšteg numeričkog metoda za analizu prostiranja svetlosti u multimodnom gradijentnom svetlovodu, *Conf. of JUTEL 1987*, Ljubljana, Yugoslavia
 23. Babić, R., Mogućnost poboljšanja ekstraktora nosećeg talasa sa kvadriranjem, *28. Konf. ETAN-a*, jun 1984. Split, Jugoslavija (eng. Possibility of improving the carrier wave extractor with squaring)
- Ranko Babić, „Osobenosti telekomunikacione mreže sistema upravljanja vodovodnog i kanalizacionog sistema“, *Međunarodna konferencija Savremena elektromašinska oprema i upravljanje sistemima vodovoda i kanalizacije*, Vrnjačka Banja, Oktobar 2004.)

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Књиге и монографије Напомена: свака књига/монографија мора да има наведене: ауторе, годину публикавања, назив издавача, ИСБН број и тип књиге (уџбеник, монографија, помоћни уџбеник ...).
Анализа сигнала I , Академска мисао, Београд 2000, стр. 225, ISBN 86-7466-033-9, стр.250, (Fourier series, Fourier transform, Contour analysis, 2D FT, Fourier optics, Signal analyzers) Анализа сигнала I методичка збирка решених задатака, Академска мисао, Београд 2000, стр. 225, ISBN 86-7466-034-7, монографија и уџбеник Анализа сигнала II, Академска мисао, Београд 2008, ISBN 978/86/7466/336/3, стр. 317 (Parts: Theory of probability, Theory of random processes and signals, Collection of solved problems) . .
Пројекти
Национални
Неколико пројеката
Међународни
Учешће у пројекту DBBT (DIGITAL BROADCASTING AND BROADBAND TECHNOLOGIES) у оквиру програма Erasmus+ (2015-18), чији резултат је био изградња и опремање ТВ студија, као и оснивање одговарајућег мастер студијског програма.
Области интересовања
Многострука интересовања
Други подаци које сматрате релевантним (признања, награде, елаборати, студије, чланства, сертификати, усавршавања, комерцијални пројекти итд.)
Публицистика из популарне науке Popular science writings (e.g. for “Čitalište”, a web magazine for popular science at

SC-BG)

Многобројни научно-популарни текстови (нпр. за „Читалиште”, веб часопис за популарну науку на Рачунарском факултету у Београду

Серијал ТВ емисија „Математика“

1. Математика, епизода 1, “Да ли су ти све овце на броју?”, 3. 3. 2020.

<https://www.youtube.com/watch?v=g0JaWSg8XMU>

2. Математика, епизода 1, “Легенда о шаху”, 4. 11. 2020. on

<https://youtu.be/iLZyJ14hVAM> или

<https://www.youtube.com/watch?v=iLZyJ14hVAM> ,

Књижевна дела

Ранко Бабић, Крук, Прогето 2010, Београд, ISBN 978-86-909661-3-4, роман

Ранко Бабић, Дубине висина, 2006, Београд, ISBN 978-86-909661-0-3, збирка песама

Ранко Бабић, Пола човек пола човек, Шумадијске метафоре 2007, Београд, ISBN 978-86-7197-123-8, збирка песама

Ранко Бабић, Деца су већа од деце, 2007, Београд, ISBN 978-86-909661-1-0, збирка песама

Ранко Бабић, Калуп за наличје, Прогето 2010, Београд, ISBN 978-86-909661-2-7, збирка песама

Напомена: Члан Удружења књижевника Србије (од 2010).

Лиценца одговорног пројектанта Инжењерске коморе Србије бр. 353 I 945 10

Erasmus+ teaching mobility

June 2018 Cumhuriyet University, Sivas, Turkiye

June 2021 National & Kapodistrian University of Athens, Athens, Greece

Од 2018. професор (на сва три нивоа студија) на Техничком факултету

Универзитета у Бихаћу, Босна и Херцеговина