

CURRICULUM VITAE

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| <p>First name, Surname Address (business)</p> <p>Phone/Fax: E-mail</p> | <p>IRENA LYUBENOVA GRIGOROVA University of Mining and Geology "St. Ivan Rilski", https://mgu.bg/en/ 1700 Sofia, Bulgaria, Studentski grad, Prof. Boyan Kamenov Str., + 359 2 8060 547, + 359 2 8060203, + 359 2 8060234 vice_rector_nid@mgu.bg, nid@mgu.bg, irena.grigorova@mgu.bg</p> |
| <p>Positions (at moment)</p> | <p>2020 → now Vice Rector Research & Development University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Studentski grad, Prof. Boyan Kamenov Str., https://mgu.bg/en/</p> |
| <p>Positions (at moment)</p> | <p>2020 → now Head of the Publishing House "St. Ivan Rilski" of the University of Mining and Geology "St. Ivan Rilski" University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Studentski grad, Prof. Boyan Kamenov Str., https://mgu.bg/en/</p> |
| <p>Positions (at moment)</p> | <p>2022 → now Professor Department of Mineral Processing and Recycling Professional field 5.8. Exploration, extraction and treatment of minerals, Scientific specialty "Mineral processing and recycling" University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Studentski grad, Prof. Boyan Kamenov Str., https://mgu.bg/en/</p> |
| <p>Occupation or position held</p> | |
| <p>Dates Occupation or position held</p> | <p>2016 - 2024 Head of Mineral Processing and Recycling Department Prof. D.Sc., Eng. Department of Mineral Processing and Recycling, University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria, Studentski grad, Prof. Boyan Kamenov Str., https://mgu.bg/en/</p> |
| <p>Dates Occupation or position held</p> <p>Name and address of employer</p> | <p>2012 - 2022 Associate Professor Professional field 5.8. Exploration, extraction and treatment of minerals, Scientific specialty "Mineral processing and recycling" University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Studentski grad, Prof. Boyan Kamenov Str., https://mgu.bg/en/ Department of Mineral Processing and Recycling</p> |
| <p>Dates</p> | <p>2009 –2012</p> |

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| Occupation or position held | Chief Assistant Professor Professional field 5.8. Exploration, extraction and treatment of minerals, Scientific specialty "Mineral processing and recycling" |
| Name and address of employer | University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Studentski grad, Prof. Boyan Kamenov Str., https://mgu.bg/en/ Department of Mineral Processing and Recycling |
| Dates | 2007 –2009 |
| Occupation or position held | Senior Assistant Professor Professional field 5.8. Exploration, extraction and treatment of minerals, Scientific specialty "Mineral processing and recycling" |
| Name and address of employer | University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Studentski grad, Prof. Boyan Kamenov Str., https://mgu.bg/en/ Department of Mineral Processing and Recycling |
| Dates | 02.2007 – 11.2007 |
| Occupation or position held | Assistant Professor Professional field 5.8. Exploration, extraction and treatment of minerals, Scientific specialty "Mineral processing and recycling" |
| Name and address of employer | University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Studentski grad, Prof. Boyan Kamenov Str., https://mgu.bg/en/ Department of Mineral Processing and Recycling |
| Education and training | |
| Dates | 03.2024 |
| Title of qualification awarded | Specialized training in innovative educational technologies, National Program "Digital Qualification", Ministry of Education and Science |
| Educational institution | "Angel Kanchev" University of Ruse |
| Dates | 2015 |
| Title of qualification awarded | Doctor of Sciences (Doctor of Technical Sciences) , Professional field 5.8. Exploration, extraction and treatment of minerals, Scientific specialty "Mineral processing and recycling" |
| Speciality code | Mineral Processing and Recycling |
| Main subjects covered or professional skills acquired | Mineral processing of industrial solid and liquid waste, waste recycling, water treatment, mining waste management |
| Educational institution | University of Mining and Geology "St.Ivan Rilski", Sofia, Bulgaria |
| Dates | 11.2010 |
| Title of qualification awarded | Special training for acquiring skills for introducing information and communication technologies in the teaching process in high schools and e-work-environment, Ministry of Education, Youth and Science, Project „Increasing qualification on the teachers in the higher education institutions”. |
| Educational institution | Technical University of Sofia, Bulgaria |

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| Dates | 06.2010 | | | | | | | | | |
| Title of qualification awarded | Special seminar for projects preparation financed by European funds, fulfilling the requirements and EU standards. Financial support of the EU and its characteristics for Bulgaria; Programs and projects for financial assistance; Project key elements and connections between them; Criteria for project evaluation; Documentation accompanying the project. | | | | | | | | | |
| Educational institution | Sofia Educational Centre, Sofia, Bulgaria | | | | | | | | | |
| Dates | 03-06.2010 | | | | | | | | | |
| Title of qualification awarded | Special language course for learning professional terminology for teachers with foreign language skills. Certificate of foreign language specialization, registration № 6257. | | | | | | | | | |
| Educational institution | New Bulgarian University, Sofia, Bulgaria | | | | | | | | | |
| Dates | 09.2008 – 01.2010 | | | | | | | | | |
| Title of qualification awarded | Certificate of foreign language education, registration № 8963 | | | | | | | | | |
| Educational institution | BRITANICA Cambridge ESOL Center | | | | | | | | | |
| Dates | 2000 – 2004 | | | | | | | | | |
| Title of qualification awarded | Educational and scientific degree "Doctor" (Ph.D.) , Professional field 5.8. Exploration, extraction and treatment of minerals, Scientific specialty "Mineral processing" | | | | | | | | | |
| Main subjects covered or professional skills acquired | Mineral processing of ferrous, non-ferrous, rare and precious metals, coal, industrial minerals, construction and rocks; management, processing and recycling of solid and liquid industrial and municipal wastes. | | | | | | | | | |
| Educational institution | University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Department of Mineral Processing | | | | | | | | | |
| Dates | 1995 – 2000 | | | | | | | | | |
| Title of qualification awarded | M.Sc. in Mineral Processing | | | | | | | | | |
| Educational institution | University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria Department of Mineral Processing and Recycling | | | | | | | | | |
| Mother tongue(s) | Bulgarian | | | | | | | | | |
| Other language(s) | English, Russian | | | | | | | | | |
| Self-assessment according to The Common European Framework of Reference for Languages | Understanding | | | | Speaking | | | | Writing | |
| | Listening | | Reading | | Spoken interaction | | Listening | | Reading | |
| | B1 | Independent | B1 | Independent | B1 | Independent | B1 | Independent | B1 | Independent |
| | C1 | Fluently | C1 | Fluently | C1 | Fluently | C1 | Fluently | C1 | Fluently |
| English | | | | | | | | | | |
| Russian | | | | | | | | | | |

Foreign language specialization Certificate, registration № 6257,
New Bulgarian University, Sofia, Bulgaria.
Certificate of foreign language education, registration № 8963,
BRITANICA Cambridge ESOL Center Sofia, Bulgaria

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| Professional information and applications | |
| Professional and Research interests (keywords) | Mineral processing of ores, nonferrous metals, industrial minerals and rocks and related Interfacial phenomena; Coal preparation; Mining waste management; Fine particles processing; Flotation, gravity separation; Wastewater treatment; Sustainability and energy utilization; Comminution and physical separation; Solid – liquid separation; Pelletizing of Solid fossil and biogenic fuels briquetting; Environmental protection; Sintering. |
| Patents and Inventions | Utility model in Bulgaria – 3. |
| Membership of professional organizations | <ul style="list-style-type: none"> - Member of Editorial Board of "Geology and Mineral Resources Journal", 2024 - to date. - Member of Editorial Board of the Proceedings of XV Balkan Mineral Processing Congress, 2013, Vol. I (ISBN 978-954-353-217-9) and Vol. II (ISBN 978-954-353-218-6), Publishing House "St. Ivan Rilski". - Member of organizational, executive and editorial committee of XV BMPC Organizing and Editorial Committee, Sozopol, Bulgaria, 2013 – now. - General Manager of the XV Balkan Mineral Processing Congress, 2013. - Member of the International Scientific Committee and reviewer of International Scientific Committee of Symposium on Recycling technologies and Sustainable development, Serbia, 2009 – 2012. - Member of the International Scientific Committee and reviewer of the International and Professional Meeting Ecological Truth, Serbia, 2010 – now. - Member of the editorial board of the Journal of Recycling and Sustainable Development, 2018 - now. - Member of the Editorial Board of the Journal of Mining and Geological Sciences, part II, Mining, Technology and Mineral Processing, 2018 – now. - Member of the International Scientific Committee of the XIII International Mineral Processing and Recycling Conference, Belgrade, Serbia, 2018 - now. - Chairman of the International Scientific Committee of the International Scientific Conferences of the University of Mining and Geology "St. Ivan Rilski, 2020 – now. - Reviewer of Sustainable Extraction and Processing of Raw Materials Journal, 2020 - now. - Member of the Editorial board of the International Mineral Processing and Recycling Conference (IMPRC 2023), Technical Faculty in Bor, University of Belgrade, 2023 -now. - Reviewer of Journal of Mining and Metallurgy, Section A – Mining, 2016 - now. - Reviewer of "Minerals", journal – 2023 – now. |
| Publications | Over 160 publications in various national and international scientific journals, conference proceedings, books and monographs. Author of 2 monographs, co-author of 25 books and 1 bilingual encyclopedia |

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| | “Basics of Mineral Processing”. |
| Projects | <p>Supervisor and participant of national and international scientific and technological projects (60).</p> <p>Coordinator for the Bulgarian National Strategy for Development of the Mining Industry, 2011.</p> <p>Scientific supervisor of the research teams from the University of Mining and Geology "St. Ivan Rilski" under National Science Program "Critical and strategic raw materials for a green transition and sustainable development", approved by the Resolution of the Council of Ministers № 508/18.07.2024 and funded by the Ministry of Education and Science of Bulgaria, 2024 – now.</p> <p>Supervisor the project BG05M2OP001-2.016-0010 "Modernization, digitalization, and internationalization of education in the professional area "Architecture, construction, and geodesy", at the University of Mining and Geology "St. Ivan Rilski", funded by the Operational Program "Science and Education for Smart Growth", co-financed by the European Union, through the European Structural and Investment Funds, 2021 – 2024</p> <p>Supervisor the project BG05M2OP001-2.013-0001 "Student Internships - Phase 2" National Program "Science and Education for Smart Growth 2014 - 2020", through the European Social Fund of the European Union, 2019 - 2023</p> |
| Awards | <p>Young Scientist Award of the University of Mining and Geology “St. Ivan Rilski”, Sofia, Bulgaria, 2012.</p> <p>Award for overall contribution to Scientific Development and Improvement of Technologies for Recycling and Sustainable Development in Environmental Protection, University of Belgrade, Technical Faculty Bor, Serbia, 2009.</p> |
| Participation in scientific sessions, conferences and congresses (for last years) | <p>Chairman of the International Scientific Sessions:</p> <ul style="list-style-type: none"> - XVIII International and Professional Meeting Ecological Truth, 2010, Serbia. - XIX International and Professional Meeting Ecological Truth, 2011, Serbia. - VI Symposium on Recycling Technology and Sustainable Development, 2011, Serbia. - XVI Balkan Mineral Processing Congress, Beograd, 2015, Serbia. - International Scientific Conferences of the University of Mining and Geology “St. Ivan Rilski”, 2016 – 2024, Sofia, Bulgaria. <p>Participation in Scientific Sessions and Conferences in Bulgaria:</p> <ul style="list-style-type: none"> - International Scientific Conferences of University of Mining and Geology “St. Ivan Rilski”, 2003 – 2024, Sofia, Bulgaria. - International conference of the black sea region and southeastern Europe, Workshop, PROMITHEAS – 2, 2007, Sofia, Bulgaria. - National scientific and technical conference with international participation “Technologies and Practices in Underground Mining and Mine Construction”, 2008 – 2010, Devin, Bulgaria. - Scientific Conference with international Participation “Science in globalization”, 2008 – 2019, Kardzhali, Bulgaria. - Annual National Scientific Conference with International Participation “The man and the universe”, 2011, Smolyan, Bulgaria. |

- XV Balkan Mineral Processing Congress, 2013, Sozopol, Bulgaria.
- Technical Workshop "Prospects for Metallurgical Processing Lead-Zinc Raw Materials Development", 2014, Plovdiv, Bulgaria,
- IX International Multidisciplinary Scientific GeoConference, 30 June – 06 July 2019, Albena, Bulgaria.
- XX International Multidisciplinary Scientific GeoConference, 16 – 25 August 2020, Albena, Bulgaria.
- International conference "Materials, Methods & Technologies", 15-18 August 2024, Burgas, Bulgaria.

Participation in scientific sessions and conferences abroad:

- VI International Industrial Minerals Symposium, 2007, Izmir, Turkey.
- XII Balkan Mineral Processing Congress, 2007, Delphi, Greece.
- XIX International Congress & Exhibition, 2008, Athens, Greece.
- XXIV International Mineral Processing Congress, 2008, Beijing, China.
- XXI International Serbian Symposium on Mineral Processing, 2008, Serbia.
- IV Symposium "Recycling Technologies and sustainable development, 2009, Serbia.
- III Balkan Mining Congress, 2009, Izmir, Turkey.
- II International Symposium on the Processing of Industrial Minerals, 2010, Istanbul, Turkey.
- XVIII International Scientific and Professional Meeting "Ecological Truth", 2010, Serbia.
- XXV International Mineral Processing Congress, 2010, Brisbane, Australia.
- XIX International Scientific and Professional Meeting "Ecological Truth", 2011, Serbia.
- XIV Balkan Mineral Processing Congress, 2011, Tuzla, Bosna and Herzegovina.
- XXII World Mining Congress, 2011, Istanbul, Turkey.
- VI Symposium Recycling Technologies and Sustainable Development, 2011, Serbia.
- XXVI International Mineral Processing Congress, 2012, New Delhi, India.
- VII Symposium Recycling Technologies and Sustainable Development, 2012, Serbia.
- XXIII World Mining Congress, Montreal, 2013, Canada.
- XXVII International Mineral Processing Congress, 2014, Santiago, Chile.
- I International Mineral Engineering Congress, 2014, San Luis Potosi, Mexico.
- XVI Balkan Mineral Processing Congress, 2015, Beograd, Serbia.
- ISWA World Recycling Congress, 2016, Novi Sad, Serbia.
- XXIV World Mining Congress, 2016, Rio de Janeiro, Brazil.
- XVII Balkan Mineral Processing Congress, 2017, Antalya, Turkey.
- XXIX International Mineral Processing Congress, Moscow, Russia, September 17-21, 2018.
- VII International Conference "Civil Engineering - Science and Practice", 10-14 March 2020, Kolašin, Montenegro.
- XI Symposium with International Participation "Mining 2020", 8-11 September 2020, Vrnjačka Banja, Serbia.
- XIX Balkan Mineral Processing Congress, 2023, Prishtine, Kosovo.
- International Conference on Research in Engineering, Technology and Science,

2023, Budapest, Hungary

- 6th International Conference on Research in Engineering, Technology and Science, August 22 - 25, 2024, Tashkent, Uzbekistan.

Other professional skills

Scientific supervisor for over 30 successfully graduates master's degree and 4 successfully graduate PhD students. Scientific supervisor of 1 full-time doctoral student in the process of training, Department "Mineral processing and recycling".
Reviewer of theses, curricula, dissertations for obtaining scientific degrees and academic positions, research projects, scientific publications, etc.
Member of the Academic Council of the University of Mining and Geology «St. Ivan Rilski», 2020 - now.
Member of the Mineral Processing and Recycling Department Council, 2007 – now.
Member of the General Assembly of University of Mining and Geology, Sofia, Bulgaria, 2012 – now.
Member of the General Assembly of Faculty of Mining Technologies, 2016 – now.
Development of new lecture courses, seminars and workshops on subjects: Mining Waste Management - "Master" degree; Solid Fuel Processing Technologies - "Master" degree; Technological assessment of minerals - "Master" degree; Technologies for polymetallic ores processing - "Master" degree; Granulometric Raw Material Preparation – "Bachelor" degree; Fundamentals of Mineral Processing and Recycling - "Bachelor" degree; Processing and Recycling of Technogenic Raw Materials - "Bachelor" degree; Engineering Practices in the Processing of Minerals and Technogenic Raw Materials - "Bachelor" degree; Briquetting, Sintering and Pelletising - "Bachelor" degree.
Technical skills and practical experience with special equipment for measuring elektrokinetic potential of dispersed in a fluid nano- and microparticles - Zetasizer Nano ZS90, Malvern Instruments Ltd.