



**“ANGEL KANCHEV” UNIVERSITY OF RUSE
UNION OF SCIENTISTS – RUSE**

**РУСЕНСКИ УНИВЕРСИТЕТ “АНГЕЛ КЪНЧЕВ”
СЪЮЗ НА УЧЕНИТЕ – РУСЕ**

Sessions Schedule & Abstracts

Програма & Резюмета

57th Annual Science Conference of Ruse University

**NEW INDUSTRIES, DIGITAL ECONOMY, SOCIETY -
PROJECTIONS OF THE FUTURE**

57^{ma} Годишна конференция на Русенския университет

**НОВИ ИНДУСТРИИ, ДИГИТАЛНА ИКОНОМИКА, ОБЩЕСТВО –
ПРОЕКЦИИ НА БЪДЕЩЕТО**

2018 – Ruse, Razgrad, Silistra

Publishing: “Angel Kanchev” University of Ruse

Print: University of Ruse Publishing Center

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MESSAGE FROM ORGANIZING COMMITTEE

DEAR CONFERENCE PARTICIPANTS,

University of Ruse and Ruse Union of Scientists are pleased to welcome you to the 57th annual scientific conference, which is co-organized by our two institutions. Scientific and plenary sessions are being held respectively in Silistra, on October 20, in Ruse – on 25, 26 and 27 October, and in Razgrad, on 2 and 3 November, 2018.

Theme of the conference is "New Industries, Digital Economy, Society - Projections of the Future." The Booklet includes the program and the abstracts of 314 reports on research findings, which will be presented during all session days and other parallel forum events.

The authors will discuss their views in the following research areas and topics, which correspond to the conference theme:

Agricultural Machinery and Technologies; Maintenance and Reliability Thermal; Hydro- and Pneumatic Equipment; Ecology and Conservation; Chemical Technologies; Biotechnologies and Food Technologies; Mechanical Engineering and Machine-building Technologies; Electrical Engineering, Electronics and Automation; Communication Systems and Networks; Transport and Machine Science; Economics and Management; Linguistic and Cultural Science, Intercultural and Political Communication; Mathematics, Informatics and Physics; Education – Research and Innovations; Pedagogy and Psychology; History, Ethnology and Folklore; Linguistics, Literature and Art Science; Health Prevention and Social Work; Health Promotion.

We hope, that scientific reports and discussions will contribute to deepening the understanding related to various aspects of regional economic transformation based on the implementation of innovative strategies and approaches to *New Industries, Digital Economy, Society* and its relations to business environment and quality of life. The use of systematic thinking is the basis for creating effective applications and best practices in many areas of science and its impact on business development and growth.

Ruse Union of Scientists and Ruse University are characterized by their multi-profile identity, and they cover competencies in all above presented scientific fields and areas of research.

All abstracts with key words and reference lists in English, approved for presentation at the conference, meet the layout requirements and have been included in the **“Proceedings - Programme and Abstracts of the 57th ISC of the University of Ruse’18”**.

Pending nominations by the Programme Committee, up to two papers from each section, which have been submitted and presented in English, will be published in Compiled works „Best Paper’18“, as hard copy and on-line on the Conference Website.

After double blind reviewing, papers with significant contribution will be offered for publishing in the journal „Reports of the Union of Scientists - Ruse“ and the thematic journals: „Journal of Entrepreneurship & Innovation“ (paper/on-line); „Agricultural, Forest and Transport Machinery and Technologies“, „Pedagogical Innovations“ and “Journal of Applied Linguistic and Intercultural Studies (JALIS)”, distributed in many libraries in Bulgaria and abroad. After double blind reviewing, papers with significant contribution will be offered for publishing in the following journals, in compliance with their requirement for publishing: Transport problems (Scopus); Proceedings of ComSysTech’19 (Scopus), Serbian Journal of Management (Scopus).

All the remaining papers, successfully approved by international double blind reviewing, will be published in the respective series of Proceedings of the University of Ruse, vol. 57, 2018 and on-

line on the Conference Website: ISSN 1311-3321 (print); ISSN 2535-1028 (CD-ROM); ISSN 2603-4123 (on-line).

The issue “Proceedings of the University of Ruse“ was included in the international ISSN database, available at <https://portal.issn.org/>.

The online edition of “Proceedings of the University of Ruse“ is registered in the portal ROAD scientific resources online open access.



The authors have one month to finalize their reports and summaries. The official collections of the conference will be posted online at: <http://conf.uni-ruse.bg>.

Welcome to University of Ruse! We wish you a pleasant and productive stay!

From the co-organizers of the Conference,

- **Chair:**

COR. MEM Prof. Hristo Beloev, DTSc – Rector of UR, Chairperson of US - Ruse

- **Scientific Secretary:**

Prof. Diana Antonova PhD, Vice-Rector Research

FRI-2G.405-1-PP-06

TEACHER VIEWS ABOUT ESTABLISHMENT AND FUNCTIONALITY OF THE SYSTEM OF PROFESSIONAL DEVELOPMENT OF TEACHERS IN REPUBLIC OF MACEDONIA

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***Abstract:** The skills and knowledge that teachers acquire during their initial education are the only basis for enabling them to enter the world of the teaching profession. They must be constantly expanded, deepened and innovated according to the changes and needs imposed by the intensive technical, technological, and scientific development, as well as the expressed tendencies for democratization and humanization of school education. In order to achieve this goal, it is necessary for teachers to possess competences for quality educational work and to have the opportunity to continuously professionalize and advance during their careers. The paper is part of the project "Professional Development of Teachers in the Republic of Macedonia - Situations and Challenges" (2016-2018). The survey covers 398 teachers (primary school teachers from I till V grade and subject teachers) from 28 primary and secondary schools in the Republic of Macedonia. The survey's purpose is to study the attitudes and opinions of teachers about the position and functionality of the system of professional development of teachers in the Republic of Macedonia, in order to improve it. In this context, we tried to answer the following questions: who should determine the aims and contents of the teachers' professional development; who should perform the organized trainings, and what are the factors that can contribute to the promotion of the professional development of teachers. The obtained results point to the need for changes in the pedagogical-organizational setup of the system for professional development of teachers in the Republic of Macedonia.*

***Keywords:** teachers, professional development, Republic of Macedonia*

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FRI-2G.405-1-PP-07

REQUIREMENTS FOR TEACHER EDUCATION IN VOCATIONAL EDUCATION AND TRAINING

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***Abstract:** One of the goals of education today is to prepare young people with knowledge, skills and competences that will be required tomorrow and will enable them to be concurrent at the labor market. In recent years, special emphasis is placed on vocational education and training. One of the keys for successful vocational education and training is highly qualified teachers. However, when it comes to vocational education, this issue has its own specifics, because teachers beside basic pedagogical competences should also fulfill and other conditions aligned with the specific area of work. There are different practices between countries regarding the requirements that teachers in vocational educations should fulfill. In most of the countries, main condition is a degree in specific area and pedagogical training, while in some countries relevant experience in the field is required. In this regard, this paper analyses the issue related with requirements that teacher should fulfill, in a meaning of initial education and other conditions in order to work as teachers in vocational education and training. The emphasis is given on analyses of specific requirement related with the type and level of pedagogical training and education needed for specific area; working experience in specific area of work, as well as specific requirements needed to become a teacher in Vocational education. A comparative analysis has been made at a sample of universities in the Balkan region and other European countries. Analysis shows that there are different approaches in the system of vocational education, as well as criteria for being vocational education teacher.*

***Keywords:** Initial teacher education, pedagogical competences, vocational education and training.*