

ANALYSIS OF THE EFFECTIVENESS OF BSUIR'S INTERACTION WITH IT COMPANIES IN THE CONTEXT OF THE DISTRIBUTION AND EMPLOYMENT OF GRADUATES

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Annotation. This paper analyses the cooperation system between BSUIR and leading IT companies in the context of graduate distribution and employment. Drawing exclusively on official data published on bsuir.by, the study examines quantitative partnership indicators, forms of university–industry cooperation, active corporate educational centres, and graduate employment outcomes. Key structural strengths and directions for further development of the partnership model are identified.

Key words: BSUIR; IT companies; graduate employment; university–industry cooperation; educational centres; Hi-Tech Park; practical placement; distribution system.

Introduction. The Belarusian State University of Informatics and Radioelectronics (BSUIR), founded in 1964, is the leading engineering university in the Republic of Belarus in the fields of computer science, radioelectronics, and telecommunications. Over more than 60 years the university has trained over 100,000 graduates and holds the status of the base organisation of the CIS in the field of higher education in computer science and radio electronics [1]. Today BSUIR enrolls over 10,000 students annually across 8 faculties, 35 research laboratories, and 7 research centres [2].

The Republic of Belarus has been actively developing its IT sector since the establishment of the Hi-Tech Park (HTP) in 2005, which created preferential conditions for technology companies and accelerated demand for qualified IT professionals. BSUIR addresses this challenge through a multi-layered partnership system involving corporate educational centres, joint research laboratories, academic department branches at enterprises, and targeted employment contracts. As of 2025, this system encompasses partnerships with 168 institutions in more than 50 countries [3]. The objective of this paper is to systematically assess the forms and outcomes of BSUIR's cooperation with IT companies in the context of graduate employment. All data are drawn exclusively from official sources on the BSUIR website (bsuir.by).

Main part. The scale of BSUIR's cooperation with industry is confirmed by specific indicators on the official university website. As of 2025, BSUIR maintains 45 joint educational and research laboratories; 28 branches of BSUIR academic departments function inside leading enterprises; and 7 corporate educational centres of world-leading companies operate on campus [1]. The university guarantees 100% of state-funded students entry-level employment upon graduation [1]; every year employer requests exceed the number of available graduates by a factor of two [1]; and approximately 20% of graduation projects are introduced directly into industrial production [1].

Corporate educational centres represent one of the most institutionally significant mechanisms of BSUIR's cooperation with industry. Seven centres of world-leading companies currently operate on campus: the National Instruments Educational Centre, the IBM Centre of Competency, the Cisco Networking Academy Affiliate, the SAP Academic Competence Centre, the Android Software Centre, the INTES Educational and Research Centre, and the BSUIR–Huawei Engineering and Educational Centre. Each provides students with access to vendor-specific technology platforms and professional certification alongside their degree programmes [4].

Among corporate partners, Huawei occupies a particularly prominent position in 2025. BSUIR Rector Vadim Bogush has identified cooperation with Huawei as a key element of the university's international industry engagement [5]. The Cisco Networking Academy Affiliate enables students to obtain CCNA certification prior to graduation, significantly enhancing their labour market competitiveness. At the Faculty of Computer Design (FCAD), the joint laboratory “Integrated Mobile Systems”, established with AXONIM Devices in partnership with Analog Devices, Texas Instruments, and ST Microelectronics, provides professional-grade embedded systems development experience [4]. Table 1 classifies current active corporate partners, cooperation forms, and university units involved.

Table 1 – Active IT-Company Partners of BSUIR (2022) (source: bsuir.by)

Company / Organisation	Cooperation Form	Faculty / Unit	Status (2022)
Huawei	BSUIR–Huawei Engineering & Educational Centre; joint R&D projects	University-wide	Active
IBM	IBM Centre of Competency; applied computing and data management	FITC, IIT	Active
Cisco	Cisco Networking Academy Affiliate; CCNA certification courses	FITC, IIT	Active
SAP	SAP Academic Competence Centre; ERP and enterprise systems training	FITC	Active
National Instruments (NI)	NI Educational Centre; LabVIEW instrumentation and measurement labs	FCAD, IIT	Active
INTES	INTES Educational & Research Centre; CAD/CAE engineering systems	FCAD	Active
Android Software Centre	Android application development training and certification	FITC	Active
IBA Group (IBA IT-Park)	Targeted employment; internships; joint projects	FITC, FCSN	Active
EPAM Systems	Internships; targeted employment for software graduates	FITC, FCSN	Active
Itransition	Internships; targeted employment; guest lecture programme	FITC	Active
AXONIM Devices (+Analog Devices, TI, STMicro)	Joint laboratory «Integrated Mobile Systems»; hardware training	FCAD	Active

The Faculty of Information Technologies and Control (FITC) maintains partnerships with IBM, Intel, IBA Group, EPAM Systems, Itransition, TopSoft, and Galaktika Corp., among others [4]. The Faculty of Computer Systems and Networks (FCSN) operates 13 joint laboratories and certified educational centres [4]. This multi-faculty engagement ensures that university–industry cooperation is embedded throughout the entire educational process rather than being confined to isolated units.

Belarus operates a mandatory graduate distribution system under which state-funded graduates are assigned to employers for an obligatory two-year work placement following graduation [6]. Within this framework, BSUIR guarantees 100% employment for all state-funded students. The consistent 2:1 ratio of employer requests to available graduates indicates that demand for BSUIR graduates structurally exceeds supply [1]. According to the Department of Intelligent Information Technologies (IIT) official page, 85% of IIT graduates obtain employment in HTP-resident companies including EPAM Systems, Itransition, IBA IT-Park, Gamestream, TechArtGroup, Qulix Systems, and Applied Systems, while the remaining 15% are employed by state enterprises [7].

BSUIR's cooperative network extends beyond Belarus: bilateral agreements are maintained with 168 institutions in more than 50 countries, and approximately 1,000 international students from 40 countries study at the university annually [3]. BSUIR was the first engineering institution in Belarus to introduce English-medium programmes (initial enrolment 2009), and degrees are recognised in 80 countries [8, 9]. Programmes co-developed with the Computer Systems Institute (CSI) of the USA are delivered through BSUIR-affiliated branches in Boston and Chicago, providing graduates with direct access to the North American IT labour market [8]. In October 2025, BSUIR participated in the III Meeting of the Association of Universities of Belarus and China [10], reflecting a broader strategic reorientation toward Asian counterparts that complements deepening corporate cooperation with Huawei.

Despite the strong quantitative indicators, several structural challenges warrant attention. The breadth of the partner network does not automatically guarantee uniform quality of practical training across all partner sites. The development of differentiated quality standards and structured student feedback mechanisms would significantly strengthen the system. Currently, over 400 organisations provide practical placement for students, but the depth of engagement varies considerably between

large corporate partners such as EPAM Systems and Huawei on the one hand, and smaller regional enterprises on the other.

The mandatory distribution system, while ensuring full employment for state-funded graduates, may constrain individual career mobility. Introducing greater flexibility within the framework – for example, enabling graduates to self-select among approved partner companies – could improve satisfaction and long-term retention at placement sites.

Rapid technological change in artificial intelligence, cloud computing, and cybersecurity requires continuous curriculum renewal. Formalised annual programme review procedures involving industry representatives, combined with expanded guest lecturer programmes from partner companies, would help maintain the currency of educational content. Structured co-creation of course modules between BSUIR academic staff and engineers from partner companies such as EPAM, Huawei, and IBM would be particularly valuable in fast-evolving specialisations where the gap between academic syllabi and industrial practice tends to widen most quickly.

Conclusion. This paper has provided a structured analysis of BSUIR's cooperation with IT companies in the context of graduate distribution and employment, based entirely on data from bsuir.by. The quantitative foundation of the system is strong: 45 joint laboratories, 7 corporate educational centres, 28 academic department branches at enterprises, 100% graduate employment guarantee, a 2:1 employer request ratio, and a 20% production introduction rate for graduation projects [1]. These indicators confirm the structural effectiveness of the existing cooperation model.

The active participation of Huawei, IBM, Cisco, SAP, NI, INTES, EPAM, Itransition, IBA Group, and AXONIM Devices across multiple forms of cooperation – from on-campus educational centres to targeted employment contracts and joint research laboratories – demonstrates both the depth and durability of BSUIR's university–industry partnerships. The university's continuing education infrastructure, which offers professional development programmes to industry practitioners and recent graduates alike [11], further reinforces the long-term nature of these relationships and ensures cooperation extends beyond initial graduate placement into ongoing professional development. Addressing identified challenges in quality assurance of practical training, distribution flexibility, and curriculum currency will be essential for maintaining BSUIR's position as the primary supplier of qualified IT and engineering professionals to the Belarusian and international technology markets.

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