

**Proceedings of the Republic Scientific-Practical Conference  
“Problems of E-Library Formation”**

**ABSTRACTS**

## **SESSION I. SCIENTIFIC AND THEORETICAL PROBLEMS OF E-LIBRARIES**

### **Perspectives of Future Generation E-Libraries Formation**

Rasim Alguliyev<sup>1</sup>, Nigar Ismayilova<sup>2</sup>

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**Abstract** – The paper analyzes perspectives of future generation e-libraries formation, improvement of e-libraries service quality with the application of modern ICT technologies, data analyses methods and artificial intelligence, making the utilization process for library users favorable.

**Key words** – intellectual e-libraries, data analysis, mobile e-libraries, bibliometrics

### **Information Science: Subject and Main Tasks**

Ramiz Aliguliyev

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**Abstract** – The paper describes the concept and principles of the term “information”. It gives a brief history of the term “Information Science”. In the paper, definitions of “Information Science”, its subject, basic concepts and conceptual bases are also given. For interested researchers, in Appendices are given glossary and a list of journals published in the area of “Library and Information Science”.

**Keywords** – Information Science, Bibliometrics, Informatics, Library Science

### **Assessing the User Perceptions and Preferences of Electronic Resources on Academic Library Collection Management**

Mushvig Imamverdiyev

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**Abstract** – This paper studies the effect of users perceptions and preferences of electronic resources management on academic libraries. The individuals’ different points of view are examined in terms of ease of use, usefulness and effectiveness on academic setting. This exploratory study investigated the information-seeking behavior of faculty members, students and researchers and its effect to electronic resources acquisition. The interest toward print and electronic resources were compared and the study concluded with the suggestion of electronic resources management strategy in Azerbaijan academic libraries.

**Keywords** – user perception; electronic resources management; academic library; collection development

### **The Role of Electronic Libraries in the Integration of E-Science and E-Education**

Tahmasib Fataliyev<sup>1</sup>, Nargiz Verdiyeva<sup>2</sup>

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**Abstract** – In this article the role of electronic libraries in the integration of e-science and e-education is investigated. Science 2.0 conception and its impact on e-libraries, e-science and e-education is explored. The opportunities of science and education in the integration of library networks are identified.

**Keywords** – e-science; e-education; open science; science 2.0; education 2.0; library 2.0; e-library networks

### **Copyright in the Field of Digital Resources and Libraries of Azerbaijan**

Alakbar Rustamov

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**Abstract** – The article deals with the scope of the copyright in the context of the Azerbaijani libraries. In addition, the legal problems of the use of electronic resources are investigated and analyzed. Forward with proposals that are associated with the improvement of the situation in the sphere of copyright of digital resources on the example of ADA University Library.

**Keywords** – copyright; electronic resources; librarianship; digital library

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**Actual Problems of Information Security in Digital Libraries**

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**Abstract** – Digital libraries are complex information systems which provide online library information services, and for such systems information security and privacy is of critical importance. In this paper, IDEA4SP model is proposed to analyze information security problems in digital libraries, and the urgent problems are structured according to the model levels. Technological approaches to security of personal data and protection of intellectual property in digital libraries are also analyzed.

**Keywords** – digital library; personal data; information security; privacy; IDEA4SP model

**Bibliometrics: the Current State, Problems and Perspectives**

Nigar Ismayilova

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**Abstract** – In this paper the following issues are discussed: Prospects for the applications of bibliometrics in different directions, scientific ethics violations as a result of misuse of bibliometric indicators and ways to prevent them.

**Keywords** – Bibliometrics; impact factor; scientific ethics; scientific policy

**Legal Problems of Digital Libraries**

Rasim Mahmudov

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**Abstract** – The article examines the legal aspects of digital libraries. The recommendations of such international organizations on the regulation of electronic libraries are analyzed. Basic legal problems of electronic libraries are classified and their solution ways are identified.

**Keywords** – digital library; electronic resource; copyright

**An Approach to Monitoring of Electronic Libraries**

Ramiz Shikhaliyev

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**Abstract** – Monitoring of electronic libraries is very important in terms of content optimization and evaluation of quality of services. The article is devoted to monitoring of using electronic libraries through web-traffic analysis of electronic libraries. To this end, it is proposed to classify web traffic of the users of electronic library.

**Keywords** – electronic library, monitoring, web-traffic analysis, web-traffic classification, web-traffic clusterization

**The Innovation Potential and Commercialization Perspectives of Electronic Libraries in Information Society Circumstances**

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**Abstract** – The article is dedicated to the innovation potential and commercialization perspectives of electronic libraries in information society conditions. The necessity of meeting the need of the modern society for information and knowledge resources is shown. In information society conditions e-library technologies, the basics of innovative politics in the field of library, the content of library innovations and classification is explained. The characteristics of innovations in e-library technologies are identified. The innovative potential and development directions of e-libraries and the commercialization perspectives of e-library technologies are analyzed.

**Keywords** – information and knowledge society, innovative economics, marketing and organizational innovations, e-library technologies, e-innovations, intellectual resources, innovative potential, commercialization of innovation

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**Integration to European Research and Education Networks and EaPConnect Project**

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**Abstract** – The paper introduces the open science concept in the context of a recent initiative, namely European Open Science Cloud and the e-infrastructures as building blocks of it. An overview of the framework, policy, requirements, challenges, the present and potential actors in establishing the European Open Science Cloud are briefly summarized. The natural role of GEANT community together with the national research and education networks is emphasized. EaPConnect Project is considered as a successful and promising platform for the Eastern Partnership Countries, specifically for Azerbaijan to integrate to the European e-infrastructures, Open Science Cloud and European Research Area.

**Keywords** – Open Science Cloud; networks; HPC; GEANT; NREN; e-infrastructures; EaPConnect Project; AzScienceNet

**The Ability to Implement Biometric Technology in Digital Libraries**

Shafagat Mahmudova

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**Abstract** – In this an article information about biometric technologies, traditional and electronic libraries is submitted. The use of biometric technology in libraries opportunities and prospects has been analyzed. Advantages and disadvantages of introduction of biometric technologies in libraries are explained.

**Keywords** – biometric technology; library; fingerprints; multimodal biometrics

**E-libraries: Opportunities and Problems of Big Data**

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**Abstract** – In the paper the creation of digital libraries, their opportunities, the opportunities which Big Data created for libraries and librarians and its problems are investigated. At the same time, the role of experts on the collection of Big Data, storage and management is rewied.

**Keywords** – Big Data; digital libraries; metadata; digitization; digital resources; data librarians

**Formation of Information Culture of E-Library Users**

Narmin Adigozalova

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**Abstract** – The paper highlights the e-library establishment, its formation grounds, information culture of e-library users. In the article information fatigue syndrome and a notion of technophobia are defined. Approaches of scientists to the notions of “library anxiety” and “computer anxiety” are explained.

**Keywords** – e-library, information culture, technophobia, library anxiety

**Data Sanitization Methods at Electronic Libraries**

Sabira Allahverdiyeva

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**Abstract** – In this article encountered problems while using electronic libraries and electronic database and their solutions are being explored. Concealing documents or confidential information using sanitization methods and other different tools for the this purpose are also explained.

**Keywords** – data sanitization , sanitization methods , confidential information, metadata

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### **Application of Cloud Technologies in E-Library**

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**Abstract** – The paper is dedicated to the application of cloud technologies in e-library formation. Platforms, characteristics of cloud-based e-libraries, information resources creation and usage principles are studied. At the same time, advantages of private clouds in e-libraries are analyzed.

**Keywords** – cloud technologies, cloud services, e-library, e-catalogues, database, information resources

### **Bibliomania and Bibliotherapy Solutions in E-Library Formation**

Narmin Adigozalova

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**Abstract** – The paper highlights Bibliomania and its syndromes, Bibliotherapy and its advantages, specific and non-specific psychotherapeutic processes, and Bibliophobia. Bibliomania and Bibliotherapy solutions in e-library formation are analyzed.

**Keywords** – Bibliomania, bibliophile, Bibliotherapy, Bibliophobia, e-library

### **The Problems of E-Library Terminology Formation**

Afruz Gurbanova

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**Abstract** – The paper identifies the formalization of terminological base in accordance with the digitization, automation and informatization of libraries, and presents definition and explanation of numerous concepts. Formalization issues of the terminology in e-libraries and foreign experience in this field are studied. A large number of the terms which is collected in this field are defined. The definitions of e-library concepts available in various foreign literature are compared.

**Keywords** – library digitization, library automation, library computerization, bibliographic databases, e-catalog, e-library

### **Characteristics of the E-Library Concept**

Rena Gasimova

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**Abstract** – The creation of e-library reflects a new level in analysis, storage, distribution of information. The article describes the creation of e-library as well as problem of accessibility of the e-library. Also the problems in transitioning from traditional library to e-library, the main objectives and characteristics of national e-library are analyzed.

**Keywords** – Information technology, electronic information, e-library, electronic document, e-catalog, library funds

### **The Improvement of the Dataware of Technoparks on the Base of E-library Technologies**

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**Abstract** – In this article the improvement issues of the Dataware of Technoparks on the Base of E-library Technologies are analyzed. Innovative development directions are explained. The main components of the dataware of technopark, some characteristics of information resources necessary for management and requirements are shown. The factors affecting dataware and the reasons complicating its application are analyzed. The application characteristics and perspectives of contemporary E-library technologies in technoparks are shown.

**Keywords** – innovative economics, innovation technopark, dataware, e-library technology

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**Analysis Methods of Bibliometrics**

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**Abstract** – In the paper bibliometric methods, classification of these methods and advantages of their application are informed.

**Keywords** – bibliometrics, bibliometric methods, bibliometric analysis, bibliometric research

**Scientific Data Extracting Problems in Digital Libraries**

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**Abstract** – In the paper digital libraries, large-scale data collection, metadata that is necessary for searching systems and scientific information extraction from documents are reviewed. Arising problems during their using are reviewed too.

**Keywords** – Big Data; digital libraries; scholarly data; information extraction; metadata

**Staff Building Issues in the Field of E-Library**

Nigar Ismayilova

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**Abstract** – The paper analyses the programs of library staff building in the USA, European countries, Russia and Azerbaijan, knowledge and skills required from library experts, existing problems in the learning process.

**Keywords** – library studies, library and information science, bibliography

**Issues of Information Security for Electronic Libraries**

Narmin Khasayli

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**Abstract** – Electronic libraries service is a convenient and profitable kind of service. Organizing this service provides putting large information reserves into use of readers for libraries in short time and by spending less cost and operatively implementing readers' demand. It is possible to protect information resources of electronic libraries more reliably. For this purpose, the different measures are carried out. In this article, the mentioned measures were classified and their positive and negative features were researched.

**Keywords** – e- library, safety, problems, measures, legacy, information

## SESSION II. PRACTICAL PROBLEMS of E-LIBRARIES

### **The Role of the National Library in the Organization of Continuous Education of Librarian Staff in Azerbaijan**

Melek Khanım Hajiyeva

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**Abstract** – The article gives information about the library science education in Azerbaijan, and the educational institutions that prepare librarian personnels throughout the country. By substantiating the importance of continuous educational system in enhancing the professionalism of modern librarian, the experience of the National Library in this field, establishment of training center, educational programs and the courses are highlighted in the article.

**Keywords** – library science education in Azerbaijan, continuous educational system, training center of the Azerbaijan National Library

### **Open Access Scientific and Educational Resources: Problems and Solutions (on example of Baku Higher Oil School)**

Tatyana Zayseva

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**Abstract** – International experience and development of Institutional Repositories in higher education organizations in Azerbaijan are examined in several aspects. Analyzed the experience of the Baku Higher Oil School Institutional Repository providing open access to scientific publications.

**Keywords** – open access, scientific publications, Institutional Repository, electronic archive, higher education, Baku Higher Oil School

### **E-library Services in the field of Azscience.net network**

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**Abstract** – Paper analyzes that AzScienceNet science computer network provides institutes and organizations of ANAS with broadband internet connection in order to realize scientific practical and educational tasks. AzScienceNet serves Cloud, Eduroam, Web Hosting services and etc. along with e-library services for colleagues of ANAS and other scientific organizations is noticed. Tasks in creation of electron library services over AzScienceNet network is mentioned.

**Keywords** – e-library, “Alephino”, AzScienceNet, cloud technologies, virtualization, security

### **International Practice and Standards in Formation of Digital Libraries**

Elchin Mammadov

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**Abstract** – The article examine the development chronology, defining the academic and scientific aspects of the digital libraries. Moreover global practice and standards, implementation possibilities and future perspectives are investigated.

**Keywords** – Digital library, integrated library systems, metadata, cataloging rules, classification systems

### **Electronic Archive Systems and Their Development Perspectives**

Iltifat Ibrahimov

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**Abstract** – In this paper work principles of Electronic Archive systems that are used for data collection and preservation are researched, samples from world practice about their development tendency and implementation are provided. In addition, integration of electronic archive systems with automated library systems and as a result of this integration, usage processes of digitized data through mobile devices and applications are investigated. The impact of electronic archives to libraries, their

services and development of Open Access was presented. Proposals regarding evaluation, installation and use of modern electronic institutional archives are put forward.

**Keywords** – integrated library systems, electronic archive systems, Open Access

### **The Accessibility and Usability Issues of the Large Scale Databases in the Digital Library Environment of the Higher Education**

Vafa Mammadova

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**Abstract** – The paper analyzes the history of establishment, types and characteristics of the global digital library systems, and examines the issues related with accessibility of the information, as well as, the usability of the academic oriented searches. The points which need special attention while using information sources, where the significant amount of documents are mainly consisted of academic and peer reviewed materials, are elucidated. The paper lists the problems, which occur as a result of insufficiency of academic users' and “screen readers” information knowledge and skills, and proposes the applicable ways of solutions.

**Keywords** – information age, new technologies, information services, academic environment, digital library, digital collections, digital archive, distant access, digital content, information searching, information searching tools

### **The Creation, Structural Elements And Usage Issues Of Modern Electronic Bibliographic Databases**

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**Abstract** – In this paper the creation technology of bibliographic databases, their structure elements and usage principles are submitted. Also the forming perspectives of bibliographic databases in the library-information sphere of Azerbaijan are presented.

**Keywords** – Electron bibliography; bibliographic database, OCLC; WorldCat; MARC 21

### **CSL of ANAS as the Electronic Library of the Future**

Gunel Ehedova

Central Scientific Library of ANAS, Baku, Azerbaijan

**Abstract** – The paper lists general methodological principles of e-library's resource formation while reflecting on the current problems in this field and the achievements of the Central Scientific Library of ANAS as a next generation electronic library as well as its' set goals.

**Keywords** – e-library; information resources; electronic resource; information technologies

### **Technology Problems of E-Library**

Afat Mammadova

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**Abstract** – The paper analyzes options for identifying the solution ways for the problems related to e-library, e-information databases, multimedia products copyright issues.

**Keywords** – e-library, copyright, multimedia, acquisition, electronic information

### **Perspectives Wiki Introduction of Technology for in the Modern Libraries**

Irada Alekberova

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**Abstract** – This article discusses possibilities of wiki-projects and factors which influence the use of wiki-technology in digital libraries. The purpose of research is to contribute in creating of universal wiki-libraries. For creation of wiki-libraries offered some wiki-engines are presented in the article.

**Keywords** – wiki-technologies, wiki, wiki-library, wiki-engines, MediaWiki.



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### **Analysis Log-Data Collected on the E-Library System**

Farhad Yusifov

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**Abstract** – The paper describes the issues analyzing log data collected on e-library system. Analyzing log files are investigated the study of user profiles as well as characteristics assessment methods of quantitative and qualitative.

**Keywords** – e-library; log file; log data; user profile

### **Application Problems, Requirements, Main Criteries of Cloud Computing in Electronic Libraries**

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**Abstract** – In this paper the application problems of cloud computing in electronic library are investigated. Institutions that use cloud in the libraries, cloud library services, application requirements of cloud computing in libraries, effective use criteria of cloud computing in libraries, the problems emerged by the application of cloud computing in library are analysed.

**Keywords** – e- library; cloud computing; cloud library services

### **Method for auTomatic Text Classification in Digital Library Systems**

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**Abstract** – In this paper some methods and algoritms for automatic text classification in digital libraries are analyzed.Relevance of automatic text classification systems in digital libraries was proved, bibliometric databases, web news services etc., advantages and limitations of known methods are described. Using fuzzy neural network for automatic text classificationon the base of keywords is offered.

**Keywords** – automatic classification, classification methods, automatic keywords extraction, fuzzy neural network

### **Role of Transliteration in Reference Arrangement**

Sabina Mammadzadeh

Institute of Information Technology of ANAS, Baku, Azerbaijan

**Abstract** – The paper analyzes the role of transliteration in the arrangement of references of articles published in scientific journals. Various bibliographic arrangement rules adopted by several publications are presented.

**Keywords** – bibliography, transliteration, scientific bases, scientific journals

### **Automation as a Means of Improving Efficiency of Libraries**

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**Abstract** – The paper analyzes the automatization of the activity process of library. The impact of automation on the effectiveness, security and commercialization of library is investigated.Offers are proposed on improving the efficiency of the work of E-library Center of the Institute of Information Technology of ANAS.

**Keywords** – library, e-library, virtual library, automation, effectiveness of work, the fund of audio-video visual library, library operations

### **Multimedia Gallery as a Part of E-Libraries**

Kemala Hashimova

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**Abstract** – Paper presents computerization of information services to readers in e-libraries, great opportunities for readers created by the Multimedia Gallery, methods to take advantage of new technologies.

**Keywords** – e-libraries, multimedia, multimedia gallery, information, digital library

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### **Advanced Technologies Applied in E-Libraries**

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**Abstract** – The paper studies the opportunities of advanced information technologies applied in e-libraries, their usage, and intelligent tools and trends in this field. Technologies used to provide e-library security are presented.

**Keywords** – e-library, information technologies, information resources, RFID, 3M technology

### **Intellectual Digital Library Services for Disabled Users**

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**Abstract** – In this paper digital library technologies and intellectual library services for users with disabilities are studied, methods and tools for improving educational level of disabled users in digital libraries are described.

**Keywords** – disabled users; digital library services; text analysis.

### **Automatized Library Information Systems**

Gilas Mammadova

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**Abstract** – The paper analyzes automation of library and gradual transfer of library funds to the information resources, electronic exchange systems, using the internet, serves to inform readers with the latest information. A library can not be considered a modern library without automation.

**Keywords** – e-library, automation, barcode reading, Self-Check, MARC, USMARC, Z39.50

### **Improving Service Quality in Digital Libraries Using Social Network Opportunities**

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**Abstract** – The paper analyzes prospects of using social network opportunities for improving service qualities in digital libraries. Importance of representing digital libraries in popular social networks are proved. Social, technical aspects of social e-library networks and improving of service quality in digital libraries using social network opportunities are described.

**Keywords** – e-libraries, social media, altmetries

### **Realization of the United Digital Library Platform on Basis of Online Library Networks**

Elchin Mammadov

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**Abstract** – The paper examine transformation of libraries to electronic environment, presented earliest practices about formation of corporate digital library networks. Modern aspects and activities of digital libraries are shown. Moreover, latest results about theoretical and practical achievements and observed future perspectives are presented.

**Keywords** – Digital library, integrated library systems, library networks, electronic catalog

### **Transliteration Issues in National E-Libraries**

Sabina Mammadzadeh

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**Abstract** – The paper explains the notion of transliteration and presents its role in national e-library cataloguing. Besides, it shows the differences and challenges of cataloguing of Latin and non-Latin library resources, and proposes solution ways.

**Keywords** – national e-libraries, transliteration, romanization, Latin and non-Latin alphabets, reversibility

**Effective Management of Electronic Libraries and Issues of Security**

Minara Gahramanova

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**Abstract** – The paper analyzes technologies which used in modern libraries and the basic directions of the issues. The necessity of applying new generation technologies in organizing library work is justified. The technologies used in electronic libraries of different states, which gained significant development achievements in electronic library sphere are explored and their application opportunities in digitalization process of existing libraries are researched.

**Keywords** – Library service, Electronic library, computer technic, automatition, Self-Check, RFID, MEK