

ASNET-AM Scientific Publications Internal Access System Implementation

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ABSTRACT

This paper is dedicated to the task of creating a system of access to scientific publications to support teamwork of employees of scientific institutions in Armenia. Implemented system offers the Armenian scientists and researchers the ability to search scientific publications on various criteria in available resources and in the archive system as well as the possibility of obtaining electronic copies of publications for personal use. Technological solution of internal access to scientific publications, developed at the Institute for Informatics and Automation Problems (IIAP) of the National Academy of Sciences of the Republic of Armenia (NAS RA), functioning in the academic research network in Armenia - ASNET-AM is being described.

1. INTRODUCTION

Academic Scientific Research Computer Network of Armenia (ASNET-AM) [1] currently offers network services to 64 Academic, Scientific, Research, Educational, Cultural and other organizations throughout 6 cities of Armenia. More than 3000 scientists, scientific and technical associates, postgraduates, students and other users are taking advantage of ASNET-AM services.

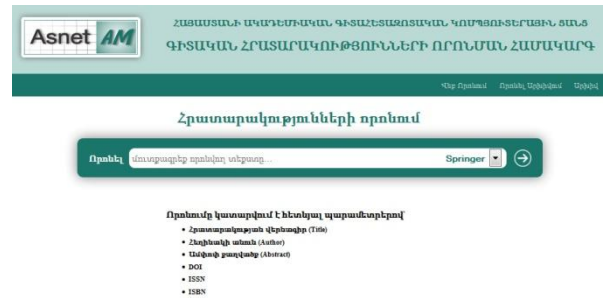
One of the services offered to ASNET-AM users is the access to scientific publications, which provides the Armenian scientists and researchers with the ability to search scientific publications on various criteria in the available resources and in the archive system as well as the possibility of obtaining electronic copies of publications for personal use. Among the scientific resources available are Springer Link and Thomson Reuters.

Until now such access was provided independently to each scientific institution on per IP address basis. Thus, it was not possible to track the statistics of resources as well as have a central internal archive of fetched resources for future use.

2. UNIFIED INTERNAL SCIENTIFIC PUBLICATIONS ACCESS SYSTEM

The development of a unified internal system of access to scientific publications for ASNET-AM began in

2013 at the IIAP NAS RA [2]. Currently the first phase of work is finished and the result is the ASNET-AM Unified Internal Scientific Publications Access System [3]. The interface language of the system is Armenian and it is intended for internal use only. It is not accessible outside ASNET-AM.



Picture 1

ASNET-AM Unified Internal Scientific Publications Access System functions like Google Academy [4], providing a possibility to search scientific publications on various criteria in the available resources as well as the possibility of obtaining electronic copies of publications for personal use.



Picture 2

ASNET-AM Unified Internal Scientific Publications Access System features are:

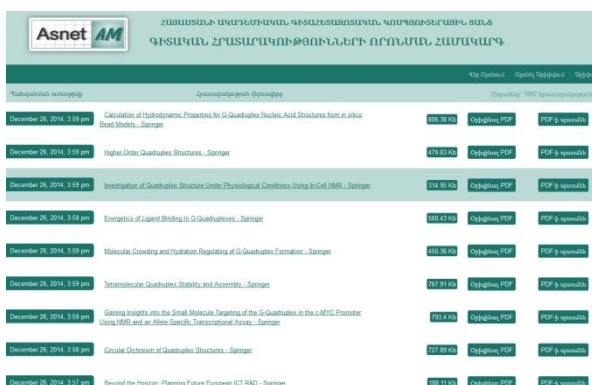
- to search scientific publications on various criteria in the available resources (Picture 1),
- to search scientific publications on various criteria in the system archive (Picture 2),
- browse the system archive (Picture 3)

- obtain the electronic copy of the found publication for personal use
- obtain the electronic copy of the found publication for personal use from the system archive

The search function implemented provides a possibility to find a scientific publication based on the following criteria:

- Publication Title
- Publication Author(s)
- Publication Abstract
- DOI Identifier
- ISSN Identifier
- ISBN Identifier

The system archives the results of all previous requests, and provides the ability to search, view and retrieve information from the archive.



Picture 3

The system is currently available to all users and organizations of ASNET-AM as a unified internal system of access to scientific publications, not available from outside.

Current access control is performed according to the IP addresses belonging to each member organization of ASNET-AM.

Next phase of the work will be the system integration with the Shibboleth-based [5] Armenian Federation Identity for Research and Education (AFIRE) [6], which is now being developed in parallel.

There are already a few services of ASNET-AM like (ASNET-AM Drive [7]), which are AFIRE-based and function in a test mode.

3. CONCLUSION

Current first version of ASNET-AM Unified Internal Scientific Publications Access System offers ASNET-AM users (scientists, scientific and technical associates, postgraduates, students, etc.) a possibility to search scientific publications on various criteria in the available resources and in the system archive as well as to obtain an electronic copy of the found publication for personal use. The system requires further development to be

compatible with the single sign-on (SSO) mechanism and become AFIRE federated identity based.

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