1ST INTERNATIONAL WORKSHOP ON INTEROPERABILITY IN SMART HOME SYSTEM

Intelligent systems in homes and buildings

October 22 to 27, 2018, Guadalajara, Jalisco, Mexico

Held in collaboration with:

17th Mexican International Conference on Artificial Intelligence,

MICAI 2018

http://www.micai.org/2018

October 22 to 27, 2018

- Workshop Proposal –

According to the new research report "Smart Home Market by Product (Lighting Control, Security & Access Control, HVAC, Entertainment & Other Control, Home Healthcare, Smart Kitchen, and Home Appliances), Software & Service (Behavioral, Proactive), and Geography - Global Forecast to 2023", the smart home market is expected to be valued at USD 137.91 Billion by 2023, growing at a CAGR of 13.61% between 2017 and 2023. The growth of the smart home market can be attributed to the significant advancements in the IoT market; increasing need for convenience, safety, and security; and rising demand for energy saving and low carbon emission-oriented solutions.

We are currently witnessing an evolution from building and home automation to smart homes, driven by progressing maturity of the Internet of Things and the use of artificial intelligence. However, significant technological challenges such as immature home intelligence, huge network and central server processing load; and embedded resource usage, still need to be addressed.

The area of smart homes is fast developing as an emergent area which attracts the synergy of several areas of science. This workshop offers a collection of contributions addressing how artificial intelligence (AI), one of the core areas of computer science, can bring the growing area of smart homes to a higher level of functionality where homes can truly realize the long standing dream of proactively helping their inhabitants in an intelligent way.

The 1ST INTERNATIONAL WORKSHOP ON INTEROPERABILITY IN SMART HOME SYSTEM (WISHS) co-located with the 17th Mexican International Conference on Artificial Intelligence (MICAI 2018) will be aimed to bring together researches, developers and practitioners involved in the research area of , Computer Science, Systems Engineering, Software Engineering, Computational Engineering, Innovation Systems, Electronic Engineering, among others.

The aim of this Workshop will be investigate and disseminate trends among innovative and high-quality research regarding the implementation of conceptual frameworks, strategies, techniques, methodologies, informatics platforms and models for Smart Home and intelligent Buildings.

Track: Intelligent Systems in Homes and Buildings

This track will offer the opportunity to present recent results and about Intelligence System in smart homes and buildings, Interoperability System, Optimization Process, theory, methods, systems and its applications at any kind of intelligent buildings.

The principal objective of this track will be to know trends and new models development for researchers and practitioners in the area of intelligent buildings. Intelligence System in Home healthcare, Energy Optimization and Real Time Monitoring in order to report the main applications and facilitate the growing in this field research.

The list of topics includes, but is not limited to:

- Artificial intelligence and Home Healthcare
- Knowledge Acquisition & Representation
- Implementation techniques and System Architectures
- Software Tools for Real Time Monitoring
- Industrial and Engineering Applications of Smart Home Systems
- Interoperability of Devices and Systems
- User Interactions
- Soft Computing Techniques for Energy Optimization
- Impact on the lives of Disabled and Elderly people
- Economic and Logistic Issues
- Ethical and Legal Issues
- Human factors in Smart Home Design

Timeline
Abstract submission: June 30, 2018
Full manuscript submission deadline: July 15, 2018
Author notification: August 31, 2018
Final version: September 15, 2018

Publication

Papers will be accepted for oral presentation at the workshop and included in the proceedings. The publication of proceedings in a Journal such as IPN-RCS or SMIA is under arrangement. Based on the quality of the submissions we are considering publishing best papers in a post-workshop special issue of a distinguished journal. Authors will be required to provide expanded versions of their submissions which will undergo an additional review process for inclusion in the special issue.

Submission Guidelines

. Interested parties are invited to submit a technical paper written in English in LNCS Springer style, not exceeding 8 pages. The details of the format can be found at Lecture Notes in Computer Science: Information for LNCS Authors. The submissions must not contain authors' names or affiliations. They must not include either any information that may reveal the authors' identities.

All submissions must not have been previously published or be under consideration for publication elsewhere. Submissions failing to meet these requirements will be rejected without revision.

All submitted papers will undergo a rigorous peer-review process that will consider programmatic relevance, scientific quality, significance, originality, style and clarity. In order to submit a paper electronically, authors must send an e-mail with the subject:

"WISHS18 Submission" to the email addresses:wishs18@gmail.com with the paper attached in PDF

format and the body of the message should contain the following data:

1. Paper title.
2. Authors' names and affiliations.
3. Postal address, e-mail address and phone number of the contact authors.
4. The abstract of the paper.
5. Up to five keywords.

Please contact any of the workshop organizers in case you have any doubt or problem with electronic submissions.

Organizers.

Fernando Gudiño Peñaloza , Ph.D.

Departamento de Ingenieria, Facultad de Estudios Superiores Cuautitlán,UNAM. Carretera Cuautitlán-Teoloyucan Km. 2.5, Industrial Xhala, 54714 Cuautitlán Izcalli, México. Phone. (+52) 555623 1875.

Email: fernando.gudino@comunidad.unam.mx

SHORT BIOGRAPHY:

Fernando Gudiño Peñaloza is a full-time Professor of the Department of Engineering at the FESC, UNAM

Mechanical Electrical and Chemical Engineer from the National Autonomous University of Mexico. Masters and Doctoral studies in the graduate program “Computer Science ” at ITESM.

The PhD thesis was developed on Hyper-Heuristic Systems and their implementation for CO problems.

cryptographic systems executed

Fernando Gudiño has remained active in the development of theoretical and practical projects on embedded electronic devices and their implementations in Intelligent Buildings, in fact he has participated in several projects within the UNAM and has made several publications in international scientific journals, and also, he has participated in different international forums.

David Tinoco Varela , Ph.D.

Departamento de Ingenieria, Facultad de Estudios Superiores Cuautitlán,UNAM. Carretera Cuautitlán-Teoloyucan Km. 2.5, Industrial Xhala, 54714 Cuautitlán Izcalli, México. Phone. (+52) 555623 1875.

Email: dativa19@gmail.com

SHORT BIOGRAPHY:

Mechanical electrical engineer from the National Autonomous University of Mexico. Masters and doctoral studies in the graduate program “Computer Science and Engineering” at UNAM.

The PhD thesis was developed on modular exponentiation algorithms and their implementation in cryptographic systems executed on embedded electronic devices.

David Tinoco has remained active in the development of theoretical and practical projects, in fact he has participated in several projects within the UNAM.

Based on his done work, David Tinoco has made several publications in international scientific journals, and also, he has participated in different international forums.

He is currently a professor at the FESC of the UNAM, he belongs to the engineering department.