Empirical Software Engineering International Week

September 5-9
Ciudad Real, Spain
Welcome from ESEIW General Chair

Welcome to the 14th Empirical Software Engineering International Week (ESEIW 2016). This year, ESEIW 2016 will take place in Ciudad Real, Spain, at the University of Castilla-La Mancha from September 5 to 9, 2016.

As is traditional, ESEIW 2016 has a strong and intense program including several events celebrated throughout one week, with a broad appeal of researchers, practitioners and educators in the field of empirical software engineering and measurement.

ESEIW 2016 hosts The ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM), which is one of the most important forums at which to present and discuss empirical research on software engineering and measurement.

ESEIW 2016 also includes the ISERN meeting (International Software Engineering Research Network), the International Doctoral Symposium on Empirical Software Engineering (IDoESE), the IASESE Advanced School (which this year will focus on the use of surveys in software engineering), and two co-located conferences/workshops (PROMISE and MeGSuS).

We are delighted to announce that several prestigious keynotes speakers have been invited to participate in the different events celebrated within ESEIW 2016:

- ESEM: Prof. Claes Wohlin, from the Blekinge Institute of Technology (Karlskrona, Sweden), Prof. Joe Peppard, from the European School of Management and Technology (Berlin, Germany).
- IDoESE: Prof. Pekka Abrhamsom, from the University of Bolzano (Bolzano, Italy).
- PROMISE: Prof. Natalia Juristo, from the Polithecnic University of Madrid (Madrid, España).
- MeGSuS: Marco Bessi who is a Solutions Delivery Consultant at CAST, (Milan, Italy).

In addition to the scientific opportunities available this week at ESEIW 2016, we also invite you to take advantage of the social events prepared for you and many cultural activities that surround the venue.

Finally, we would like to express our gratitude to all the institutions and sponsors that have supported ESEIW 2016. We are also greatly indebted to all members of the Organizing Committee for their dedication and effort. Special thanks to the authors for submitting their papers, the members of the program committee for their important work as regards reviewing and evaluating the papers in addition to promoting the ESEIW 2016, and all the delegates. All of them have helped us to make ESEIW 2016 a success.

We hope you will find the ESEIW 2016 program enriching and stimulating. Please enjoy ESEIW 2016 and your stay in Ciudad Real, Spain.

Marcela Genero
University of Castilla-La Mancha, Spain
Welcome from ESEIW General Chair ................................................................. 2
Committees........................................................................................................ 4
ESEIW 2016 Program at a Glance .................................................................... 5
  ISERN 2016 Program ....................................................................................... 6
  IDoESE 2016 Program ................................................................................... 8
  IASESE 2016 Program .................................................................................. 10
  PROMISE 2016 Program .............................................................................. 11
  MeGSuS 2016 Program ................................................................................ 14
  ESEM 2016 Program .................................................................................... 16
General Information .......................................................................................... 24
Social Events and Travel Suggestions ............................................................... 25
ESEIW Rooms ................................................................................................... 26
Committees

**ESEM Program Co-Chairs**
Andreas Jedlitschka  
Fraunhofer IESE, Germany
Magne Jørgensen  
Simula Research Laboratory, Norway

**ESEM Short Papers and Posters Co-Chairs**
Giuseppe Scanniello  
University of Basilicata, Italy
Sreedevi Sampath  
University of Maryland Baltimore County, USA

**ESEM Industrial Papers Co-Chairs**
Danilo Caivano  
SER&Practices, Italy
Daniel Port  
University of Hawaii, USA

**ESEM Publicity Co-Chairs**
Europe: Ayse Tosun Misirili  
Istanbul Technical University, Turkey
USA/Canada: Clemente Izurieta  
Montana State University, USA
Rest of America: Marcos Kalinowski  
Fluminense Federal University, Brazil
Asia/Australia: Guoping Rong  
Nanjing University, China

**ESEM Social Media Chair**
Burak Turhan  
University of Oulu, Finland

**ESEM Proceedings Chair**
Félix García  
University of Castilla-La Mancha, Spain

**ESEIW Organizing Chair**
José Antonio Cruz-Lemus  
University of Castilla-La Mancha, Spain

**Webmaster**
Luis González Sánchez de la Nieta  
University of Castilla-La Mancha, Spain

**ISERN Co-Chairs**
Stefan Wagner  
University of Stuttgart, Germany
Teresa Baldasarre  
University of Bari, Italy

**IASESE Chair**
Marco Torchiano  
Politecnico di Torino, Italy

**IDoESE Co-Chairs**
Daniela Cruzes  
SINTEF ICT, Norway
Lucas Layman  
Fraunhofer CESE, USA

**MeGSuS Co-Chairs**
Nelly Condori-Fernández  
VU University Amsterdam, Netherlands
Giuseppe Procaccianti  
VU University Amsterdam, Netherlands
Coral Calero  
University of Castilla-La Mancha, Spain
Alessandra Bagnato  
SOFTEAM, France

**PROMISE Chair**
Ayse Bener  
Ryerson University, Canada

**Organizing Committee**
Marisa Cimas, Fernando Gualo, Ismael Halioui,  
Javier Mancebo, Julio Moreno,  
María Isabel Ortega, Angel E. Prado,  
Goyo Romero, Jose M. Sierra, Ramon L. Tabaco,  
Damiano Torre  
University of Castilla-La Mancha, Spain
Eréndira M. Jiménez-Hernández  
National Autonomous University of Mexico, Mexico
## ESEIW 2016 Program at a Glance

<table>
<thead>
<tr>
<th>Sunday 4th</th>
<th>Monday 5th</th>
<th>Tuesday 6th</th>
<th>Wednesday 7th</th>
<th>Thursday 8th</th>
<th>Friday 9th</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISERN Reception</td>
<td>ISERN Banquet</td>
<td>Tapas Tour</td>
<td>ESEM Reception</td>
<td>ESEM Banquet</td>
<td>Toledo night tour</td>
</tr>
</tbody>
</table>

### Registration Opening Hours

- **Monday, September 5th, 2016**: 8:30-18:00
- **Tuesday, September 6th, 2016**: 8:30-18:00
- **Wednesday, September 7th, 2016**: 8:30-18:00
- **Thursday, September 8th, 2016**: 8:00-18:00
- **Friday, September 9th, 2016**: 8:30-14:00

### Internet Access

Wi-Fi is available for all ESEIW 2016 attendees. Connect to the “eduroam” network (if you are a member), or to the “UCLM eventos” network (obtain the daily password at the registration desk).
## ISERN 2016 Program

### Sunday, September 4\textsuperscript{th}

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>20:00</td>
<td>ISERN Reception</td>
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</tbody>
</table>

### Monday, September 5\textsuperscript{th}

<table>
<thead>
<tr>
<th>Time</th>
<th>ISERN rooms</th>
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</thead>
<tbody>
<tr>
<td>8:30-9:00</td>
<td>Registration</td>
</tr>
<tr>
<td>9:00-9:30</td>
<td>ESEIW 2016 opening</td>
</tr>
<tr>
<td>9:30-11:00</td>
<td>Welcome and New Introductions</td>
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<tr>
<td></td>
<td>Chair: Dieter Rombach</td>
</tr>
<tr>
<td>11:00-11:30</td>
<td>Collaboration Posters</td>
</tr>
<tr>
<td>11:30-13:00</td>
<td>Empirical Startup Software Engineering Chairs: Pekka Abrahamsson, Anh Nguyen Duc, Xiaofeng Wang, Marku Oivo</td>
</tr>
<tr>
<td>11:30-13:00</td>
<td>Naming the Pain in Requirements Engineering Chairs: Daniel Méndez Fernández, Stefan Wagner, Michael Felderer, Marcos Kalinowski</td>
</tr>
<tr>
<td>13:00-14:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>14:30-16:00</td>
<td>Model Quality Assurance Chairs: Stefan Biffl, Marcos Kalinowski</td>
</tr>
<tr>
<td>14:30-16:00</td>
<td>Population in Software Engineering Surveys Chairs: Per Runeson, Guilherme Travassos, Martin Höst</td>
</tr>
<tr>
<td>16:00-16:30</td>
<td>Collaboration Posters</td>
</tr>
<tr>
<td>16:30-18:00</td>
<td>Summaries, Wrap-up and Open Space</td>
</tr>
<tr>
<td>18:00-19:00</td>
<td>ISERN Steering Committee Meeting (By Invitation)</td>
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<tr>
<td>20:30</td>
<td>ISERN Banquet</td>
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ISERN 2016 Program

Tuesday, September 6th

<table>
<thead>
<tr>
<th>TIME</th>
<th>ISERN rooms</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:30</td>
<td></td>
<td>Registration</td>
</tr>
<tr>
<td>9:30-11:00</td>
<td>History of ISERN Chairs: Mike Barker, Andreas Jedlitschka, Forrest Shull</td>
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</tr>
<tr>
<td>11:00-11:30</td>
<td>Collaboration Posters</td>
<td>Morning break</td>
</tr>
<tr>
<td>11:30-13:00</td>
<td>Software Maintainability Metrics Chairs: Barry Boehm, Xavier Franch</td>
<td>Open Space</td>
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<tr>
<td>13:00-14:30</td>
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<tr>
<td>14:30-16:00</td>
<td>Digitalisation and What Does it Mean for ESE? Chairs: Andreas Jedlitschka</td>
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<tr>
<td>16:00-16:30</td>
<td>Collaboration Posters</td>
<td>Afternoon break</td>
</tr>
<tr>
<td>16:30-17:30</td>
<td>Summaries and ISERN Business</td>
<td></td>
</tr>
<tr>
<td>20:30</td>
<td>ISERN Tapas Tour</td>
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ISERN 2016 Program Details

Sunday, September 4th
20:00 ISERN Reception
The ISERN Reception will take place at the Hotel Doña Carlota.

Monday, September 5th
9:00-9:30 ESEIW Opening (Salón de Actos)

ESEIW General Chair: Marcela Genero
Dean of “Escuela Superior de Informática”: Eduardo Fernández-Medina
ESEIW Organizing Chair: José Antonio Cruz-Lemus

20:30 ISERN Banquet
Meeting point at 20:15 at the Hotel Doña Carlota. Bus leaves Hotel Doña Carlota at 20:30 for the ISERN Banquet at La Noria restaurant (http://www.lanoriarestaurante.es/).

Tuesday, September 6th
20:30 ISERN Tapas Tour
We will meet at 20:15 in the lobby of the Hotel Doña Carlota to start the ISERN Tapas Tour.
# IDoESE 2016 Program

**Wednesday, September 7**

<table>
<thead>
<tr>
<th>TIME</th>
<th>IDoESE rooms</th>
<th>PATIO/HALL</th>
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</thead>
<tbody>
<tr>
<td>8:30-9:00</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td>9:00-10:00</td>
<td>Welcome, faculty introductions, and keynote</td>
<td></td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Towards understanding work characteristics in Software Engineering. Cleyton V. C. de Magalhães. Universidade Federal de Pernambuco (UFPE), Brazil.</td>
<td>A Set of Artifacts and Models to Support Requirements Communication Based on Perspectives. Ana Carolina Oran. Federal University of Amazonas (UFAM), Brazil.</td>
</tr>
<tr>
<td>11:00-11:30</td>
<td>Morning break</td>
<td></td>
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<tr>
<td>11:30-12:00</td>
<td>Benchmarking and Comparison of Software Project Human Resource Allocation Optimization Approaches. Sultan Al Khatib. University of East Anglia, UK.</td>
<td>Why is programming so difficult to learn? Patterns of Difficulties Related to Programming Learning. Yorah Bosse. Federal University of Mato Grosso do Sul, Brazil.</td>
</tr>
<tr>
<td>12:00-12:30</td>
<td>How to automate software testing? Developing empirically validated decision support. Päivi Raulamo-Jurvanen. University of Oulu, Finland.</td>
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<tr>
<td>12:30-13:00</td>
<td>Closing</td>
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<tr>
<td>13:00-14:30</td>
<td>Lunch</td>
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<tr>
<td>19:30</td>
<td>ESEM Reception</td>
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</table>
IDoESE 2016 Program Details

9:00-10:00 Keynote Speaker (Aula 1.1)

How to do research with a real impact?

Pekka Abrahamsson

Short bio: Dr. Pekka Abrahamsson is a professor of software engineering at the Norwegian University of Science and Technology in Trondheim, Norway. He was formerly the dean and a full professor of computer science at the Free University of Bozen-Bolzano in Italy. His background is in software process improvement, agile software development and empirical software engineering research. He is the originator of the Mobile-D development methodology for mobile applications. He is the chairman of the Global Software Startup Research Network and he was awarded the Nokia Foundation award in 2007 for his impacts in the field of software engineering research and practice. Today he actively launches new startups in various technology domains as a part of his empirical startup research roadmap.

19:30 ESEM Reception
We will meet at 19:15 in the lobby of the Hotel Doña Carlota to start the tour around Ciudad Real. After the tour, there will be a reception at the Casa-Museo López-Villaseñor supported by Ciudad Real City Council.
IASESE 2016 Program

**Wednesday, September 7th**

<table>
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<tr>
<th>Time</th>
<th>IASESE room: SALA MONICO SANCHEZ</th>
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<tbody>
<tr>
<td>08:30-09:00</td>
<td>Registration</td>
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</table>
| 09:00-11:00     | Session I - Introduction to surveys  
Where we will provide the basic theoretical concepts of population surveys: general method, source of errors, sampling, instrument design. |
| 11:00-11:30     | Morning break                    |
| 11:30-13:00     | Session II - Best practices      
Where we will focus on the key aspects of designing and conducting software engineering surveys and present issues and lessons learned based on actual case studies. |
| 13:00-14:30     | Lunch                            |
| 14:30-16:30     | Session III - Hands-on (BYOL)    
During which the participants are expected to design and implement a simple survey on a real online tool. Bring Your Own Laptop, or tablet at least. |
| 16:30-17:00     | Afternoon break                  |
| 17:00-18:30     | Session IV - Q&A                 
Where the participants will discuss the most important issues and come up with some general recommendation. |

| 19:30           | ESEM Reception                   |

IASESE 2016 Program Details

**19:30 ESEM Reception**

We will meet at 19:15 in the lobby of the Hotel Doña Carlota to start the tour around Ciudad Real. After the tour, there will be a reception at the Casa-Museo López-Villaseñor supported by Ciudad Real City Council.
# PROMISE 2016 Program

## Wednesday, September 7th

<table>
<thead>
<tr>
<th>Time</th>
<th>PROMISE room: SALÓN DE ACTOS</th>
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<tbody>
<tr>
<td>08:30-09:00</td>
<td>Registration</td>
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<tr>
<td>09:00-11:00</td>
<td>Session I -</td>
</tr>
<tr>
<td></td>
<td>Welcome</td>
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<td></td>
<td>Keynote: Natalia Juristo “Use and Misuse of the term experiment in the software repositories research”</td>
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<tr>
<td></td>
<td>Jil Klünder, Oliver Karras, Fabian Kortum and Kurt Schneider. Forecasting Communication Behavior in Student Software Projects</td>
</tr>
<tr>
<td>11:00-11:30</td>
<td>Morning break</td>
</tr>
<tr>
<td>11:30-13:00</td>
<td>Session II -</td>
</tr>
<tr>
<td></td>
<td>Simone Porru, Alessandro Murgia, Serge Demeyer, Michele Marchesi and Roberto Tonelli. Estimating Story Points from Issue Reports</td>
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<tr>
<td></td>
<td>Seyedrebvar Hosseini, Burak Turhan and Mika Mäntylä. Search Based Training Data Selection For Cross Project Defect Prediction</td>
</tr>
<tr>
<td>13:00-14:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>14:30-16:30</td>
<td>Session III -</td>
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<tr>
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<td>Qing Mi, Jacky Keung and Yang Yu. Measuring the Stylistic Inconsistency in Software Projects using Hierarchical Agglomerative Clustering</td>
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<td>Luigi Lavazza and Sandro Morasca. An Empirical Evaluation of Distribution-based Thresholds for Internal Software Measures</td>
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<td></td>
<td>Gernot Liebchen and Martin Shepperd. Data Sets and Data Quality in Software Engineering: Eight Years On</td>
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<td>Verena Honsel, Steffen Herbold and Jens Grabowski. Hidden Markov Models for the Prediction of Developer Involvement Dynamics and Workload</td>
</tr>
</tbody>
</table>
16:30-17:00  Afternoon break

Session IV-
- Hudson Borges, Andre Hora and Marco Tulio Valente. Predicting the Popularity of GitHub Repositories
- István Kádár, Péter Hagedűs, Rudolf Ferenc and Tibor Gyimóthy. A Manually Validated Code Refactoring Dataset and Its Assessment Regarding Software Maintainability
- Closing Discussion and Q&A

19:30  ESEM Reception

PROMISE 2016 Program Details

8:30-9:00  Registration (Sala Polivalente)

9:00-10:00  Keynote Speaker (Salón de Actos)

Use and Misuse of the term experiment in the software repositories research
(Chair: TBD)

Natalia Juristo

Short bio: Dr. Natalia Juristo (http://www.grise.upm.es/htdocs/miembros/natalia/index.php) is full professor of software engineering with the Computing School at the Technical University of Madrid (UPM) since 1997 and holds a FiDiPro (Finland Distinguish Professor) research grant since 2013. She was the Director of the UPM MSc in Software Engineering from 1992 to 2002 and the coordinator of the Erasmus Mundus European Master on SE (whith the participation of the University of Bolzano, the University of Kaiserslautern and the University of Blekinge) from 2007 to 2012. Natalia has served in several Program Committees ICSE, RE, REFSQ, ESEM, ISESE and others. She has been Program Chair EASE13, ISESE04 and SEKE97 and General Chair for ESEM07, SNPD02 and SEKE01. She has been member of several Editorial Boards, including Transactions on SE, Journal of Empirial Software Engineering and Software magazine. Dr. Juristo has been Guest Editor of special issues in several journals, including Journal of Empirical Software Engineering,
Abstract: Today empiricism is everywhere in SE research. But this does not imply that SE is empirically mature. Conducting empirical studies does not mean they are carried out and used properly.

In this talk I focus on a methodological issue regarding research on mining software repositories (MSR). MSR is an extremely active area of research these days, but a young one that I believe still lacks rigor.

I have observed that the term experiment is misused very often in MSR works. We have conducted a small-scale literature review to understand the level of misuse and it is broad. The results of such review are shown in the talk.

I will discuss about the essential features that make an experiment an experiment and allows discovering causality. Most MSR works lack the manipulation required to an empirical study to be an experiment. To me most MSR studies are observational studies. (Although there are some type of experiments that can be conducted with repositories). To get reliable results it is critical that the researchers understand the type of study they are conducting as well as the type of evidence that every type of study generates.

I see MSR research as epidemiologic research in medicine. If properly conducted, epidemiologic studies can catch a glimpse of causality. Epidemiology has developed types of empirical studies that make evidence stronger (as control-case studies or cohort studies). MSR could learn from them and apply strategies, as random selection of data from the repository, that makes decrease bias in results.

19:30 ESEM Reception
We will meet at 19:15 in the lobby of the Hotel Doña Carlota to start the tour around Ciudad Real. After the tour, there will be a reception at the Casa-Museo López-Villaseñor supported by Ciudad Real City Council.
# MeGSuS 2016 Program

**Wednesday, September 7th**

<table>
<thead>
<tr>
<th>Time</th>
<th>MeGSuS room: SALON DE GRADOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-09:00</td>
<td>Registration</td>
</tr>
<tr>
<td>09:00-09:10</td>
<td>Welcome and Introduction:</td>
</tr>
<tr>
<td></td>
<td>Coral Calero</td>
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<td></td>
<td>Giuseppe Procaccianti</td>
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<td>Nelly Condori-Fernandez</td>
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<td></td>
<td>Alessandra Bagnato</td>
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<tr>
<td>09:10-10:00</td>
<td>Keynote talk: Green Indexes Used in CAST to Measure the Energy Consumption in Code, by Marco Bessi</td>
</tr>
<tr>
<td>10:00-10:20</td>
<td>Indicators for Green in IT Audits: A Systematic Mapping Study, by J. David Patón-Romero and Mario Piattini</td>
</tr>
<tr>
<td>10:20-10:40</td>
<td>A Learning based approach for Green Software Measurements, by Sarah Dahab, Stéphane Maag, Alessandra Bagnato and Marcos Aurélio Almeida Da Silva</td>
</tr>
<tr>
<td>10:40-11:00</td>
<td>Discussion</td>
</tr>
<tr>
<td>11:00-11:30</td>
<td>Morning break</td>
</tr>
<tr>
<td>11:30-11:50</td>
<td>An effort allocation method to optimal code sanitization for quality-aware energy efficiency improvement, by Roberto Pietrantuono, Gabriella Carrozza, Stefano Russo and Marco Bessi</td>
</tr>
<tr>
<td>11:50-12:10</td>
<td>Measuring Green Software Engineering In the MEASURE ITEA 3 Project, by Alessandra Bagnato, Marcos Aurélio Almeida Da Silva, Antonin Abherve, Jérôme Rocheteau, Claire-Lise Pihery and Pierre Mabit</td>
</tr>
<tr>
<td>12:10-12:30</td>
<td>How sustainable are model software artifacts in the context of Model Driven Software Engineering, by Damiano Torre and Coral Calero</td>
</tr>
<tr>
<td>12:30-12:50</td>
<td>Discussion</td>
</tr>
<tr>
<td>13:00-14:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>14:30-16:00</td>
<td>Panel: Sustainability &amp; Green Metrics: what, when and how to measure?</td>
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<tr>
<td>16:00-16:30</td>
<td>Sum-up and closing.</td>
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<tr>
<td>16:30-17:00</td>
<td>Afternoon break</td>
</tr>
<tr>
<td>19:30</td>
<td>ESEM Reception</td>
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</tbody>
</table>
MeGSuS 2016 Program Details

9:10-10:00 Keynote Speaker (Salón de Actos)

Green Indexes Used in CAST to Measure the Energy Consumption in Code.

Marco Bessi

Short bio: Marco Bessi is a Solutions Delivery Consultant at CAST. He is member of the delivery organization in the implementation of the CAST technology with various commercial/government customers. With the re-engineering of their SDCL, he introduces the source code quality assessment and the action plan phase to define the list of mitigation of the vulnerabilities in source code. During his PhD, his research focused on the definition of new methodologies and implement tools to measure and improve the energy efficiency of software. In particular, the project focused on the intelligent use of memory to reduce energy consumption.

Abstract: While hardware consistently evolves to become more energy efficient and support green IT strategies, the technology that companies currently use may be optimized to avoid excessive expenses as well as prevent further power consumption. Substandard software programming can consume more hardware resources than necessary. Excessive calls and code that causes the system to crash can quickly increase a company's carbon footprint. By focusing on the structural quality of software, companies can find and improve the efficiency of their applications' underlying code, as well as reduce defects that cause outages. CAST's Green IT Index is a composite of selected programming best practices that significantly impact the efficiency and robustness of your applications. Integrated as part of CAST's Application Analytics Dashboard, you can quickly drill down to analyze specific best practice violations for all your applications. The Green IT Index helps IT leaders: reduce costs associated with wasted hardware resources; improve overall software quality; promote an environmentally conscious culture within the development team.

19:30 ESEM Reception
We will meet at 19:15 in the lobby of the Hotel Doña Carlota to start the tour around Ciudad Real. After the tour, there will be a reception at the Casa-Museo López-Villaseñor supported by Ciudad Real City Council.
## ESEM 2016 Program

### Wednesday, September 7th

<table>
<thead>
<tr>
<th>TIME</th>
<th>ESEM Reception</th>
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<tr>
<td>19:30</td>
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### Thursday, September 8th

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<thead>
<tr>
<th>TIME</th>
<th>ESEM rooms</th>
<th>PATIO/HALL</th>
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<tbody>
<tr>
<td>8:00-8:30</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td>8:30-9:00</td>
<td>Opening</td>
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<tr>
<td>9:00-10:00</td>
<td>Keynote</td>
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<tr>
<td>10:00-11:00</td>
<td>SESSION A1 - Agile</td>
<td>SESSION B1 - Testing</td>
</tr>
<tr>
<td>11:00-11:30</td>
<td>SESSION A2 - Behavioral</td>
<td>SESSION B2 - Repository Mining</td>
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<td>11:30-13:00</td>
<td>SESSION A3 - Project and</td>
<td>SESSION B3 - Defects</td>
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<td>Team Productivity</td>
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<td>13:00-14:30</td>
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<td>14:30-16:30</td>
<td>SESSION A4 - Prediction</td>
<td>SESSION B4 - Software Quality &amp; Safety</td>
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<td>16:30-17:00</td>
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<td>Tour Almagro and ESEM Banquet</td>
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### Friday, September 9th

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<tr>
<th>TIME</th>
<th>ESEM rooms</th>
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<tr>
<td>8:30-9:00</td>
<td>Registration</td>
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<td>9:00-10:00</td>
<td>Keynote</td>
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<td>10:00-11:00</td>
<td>SESSION A5 - Requirement</td>
<td>SESSION B5 - Energy</td>
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<td>11:00-11:30</td>
<td>SESSION A6 - Data Analytics</td>
<td>SESSION B6 - Continuous Delivery</td>
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<td>11:30-13:00</td>
<td>SESSION A7 - Prediction</td>
<td>SESSION B7 - Empirical Models and Measurement</td>
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<td>14:30-16:45</td>
<td>SESSION A7 - Prediction</td>
<td>SESSION B7 - Empirical Methods in Software Engineering</td>
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<td>16:45-17:15</td>
<td>Closing</td>
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<td>Toledo Night Tour</td>
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ESEM 2016 Program Details

Legend of Acronyms
IP = Industrial Paper
FP = Full Paper
SP = Short Paper

Wednesday, September 7th

19:30 ESEM Reception
We will meet at 19:15 in the lobby of the Hotel Doña Carlota to start the tour around Ciudad Real. After the tour, there will be a reception at the Casa-Museo López-Villaseñor supported by the Town Hall of Ciudad Real City Council.

Thursday, September 8th

8:00-8:30 Registration (Sala Polivalente)

8:30-9:00 Opening (Salón de Actos)

ESEIW General Chair: Marcela Genero
Rector of the University of Castilla-La Mancha: Miguel Ángel Collado Zurita (or someone on his behalf)
Mayoress of Ciudad Real: Pilar Zamora (or someone on her behalf)
ESEM Program Co-Chairs: Andreas Jedlitschka and Magne Jørgensen

9:00-10:00 Keynote Speaker (Salón de Actos)

Is there a Future for Empirical Software Engineering? (Chair: Andreas Jedlitschka)
Claes Wohlin

Short bio: Claes Wohlin is a Professor of Software Engineering and Dean of the Faculty of Computing at the Blekinge Institute of Technology, Sweden. He has previously held professor chairs at the universities in Lund and Linköping. Claes Wohlin received a PhD in Communication Systems from Lund University in 1991. His research interests include empirical methods in software engineering, software process improvement, software quality, and global software engineering. He was the recipient of Telenor’s Nordic Research Prize in 2004, and elected as a member of the Royal Swedish Academy of Engineering Sciences in 2011. Contact him at claes.wohlin@bth.se or visit his website at http://www.wohlin.eu.

Abstract: Empirical studies of different kinds are nowadays regularly published in software engineering journals and conferences. Evidence-based software engineering through the use of systematic literature studies (reviews and maps) has emerged. Methodological support and guidelines for empirical studies and systematic studies have been documented. However, more is needed! We still need to improve! The keynote is focused on the needs for the future as seen by the presenter. Synthesis has proven hard, and improvements are needed when it comes to both primary studies and secondary studies. Thus, software engineering decisions in industry are mostly not made based on empirical evidence. Furthermore, theories are needed in software engineering, but it comes with requirements on the empirical researchers. The points made are highlighted through examples from systematic literature studies, industry collaboration and research on developing empirically based software engineering theories.

10:00-11:00 Session A1 - Agile (Chair: Stefan Wagner) (Salón de Actos)

10:30-11:00 Session B1 - Testing (Chair: Fabio Da Silva) (Salón de Grados)

11:00-11:30 Morning Break

11:30-13:00 Session A2 - Behavioral studies (Chair: Teresa Baldassarre) (Salón de Actos)
11:30-13:00 Session B2 - Repository mining (Chair: Filippo Lanubile) (Salón de Grados)
4. Mining Technology Landscape from Stack Overflow. Chunyang Chen and Zhenchang Xing. (FP).

13:00-14:30 Lunch

14:30-16:30 Session A3 - Project and team productivity (Chair: Guilherme Travassos) (Salón de Actos)
1. Software Project Managers’ Perceptions of Productivity Factors: Findings from a Qualitative Study. Edson Oliveira, Tayana Conte, Marco Cristo and Emilia Mendes. (SP).
5. Sustainable Software Development through Overlapping Pair Rotation. Todd Sedano, Paul Ralph and Cecile Peraire. (FP).

14:30-16:30 Session B3 - Defects (Chair: Sandro Morasca) (Salón de Grados)

16:30-17:00 Afternoon Break
17:00-18:30 Session A4 - Prediction models I (Chair: Davide Fucci) (Salón de Actos)

17:00-18:30 Session B4 - Software quality & safety (Chair: Michael Felderer) (Salón de Grados)

19:30 Tour Almagro and ESEM Banquet
Meeting point at 19:15 at Hotel Doña Carlota. Bus leaves Doña Carlota at 19:30 for the tour of Almagro and the ESEM Banquet at the Torreón de Fuensanta restaurant (http://www.torreondefuensanta.com/).
Friday, September 9th

8:30-9:00 Registration (Sala Polivalente)

9:00-10:00 Keynote Speaker (Salón de Actos)

What about the Benefits? A Missing Perspective in Software Engineering (Chair: Magne Jørgensen)

Joe Peppard

Short bio: Joe Peppard is a Professor at the European School of Management and Technology in Berlin Germany and an Adjunct Professor at the University of South Australia. He has formerly held academic appointments at Cranfield School of Management (UK), Loughborough University (UK), Trinity College, Dublin (Ireland), Groningen University (the Netherlands), Politecnico di Milano (Italy), and University of Sydney (Australia). In 2011 he was Dean’s Distinguished Scholar at the University of Southern Queensland (Australia). The focus of Professor Peppard’s research and teaching is on the area of information, information systems and information technology, primarily focusing on the domains of leadership, strategy, innovation and value realization. Through his research he seeks to challenge dominant orthodoxies as he believes that these are making a significant contribution to the problems that organizations have as regards leveraging information technologies, both operationally and strategically.

Abstract: The software engineering community has always sought to build great software and continues to seek out ways and approaches for doing this. The UX movement emphasizes the usability of the developed product. Agile approaches like scrum focus on aligning the functionality and features of the final product more closely with requirements. The recent interest in DevOps has brought to the fore the need to address the challenges once software goes into production. Despite this, in an organizational environment, great software does not necessarily translate into real business benefits; few projects fail because the software didn’t work. This presentation will introduce the concepts and practices of benefits management and benefits realization that have emerged over the last 20 years. It highlights the issues and challenges in deploying software to deliver expected business outcomes. It suggests that this is a missing perspective in software engineering. Suggestions for how this perspective might be more closely integrated with software engineering are proposed.
10:00-11:00 Session A5 - Requirement Engineering (Chair: Jeffery Carver) (Salón de Actos)
1. Using Eye Tracking to Investigate Reading Patterns and Learning Styles of Software Requirement Inspectors to Enhance Inspection Team Outcomes. Anurag Goswami, Gursimran Walia, Mark McCourt and Ganesh Padmanabhan. (FP).

10:00-11:00 Session B5 - Energy (Chair: Ayse Bener) (Salón de Grados)

11:00-11:30 Morning Break

11:30-13:00 Session A6 - Data analytics (Chair: Oscar Dieste) (Salón de Actos)

11:30-13:00 Session B6 - Continuous Delivery (Chair: Per Runeson) (Salón de Grados)
4. Bottom-up Adoption of Continuous Delivery in a Stage-gate Managed Software Organization. Eero Laukkanen, Timo O.A. Lehtinen, Juha Itkonen, Maria Paasivaara and Casper Lassenius. (FP).

13:00-14:30 Lunch

14:30-16:45 Session A7 - Prediction models and measurement (Chair: Silvia Abrahão) (Salón de Actos)

**14:30-16:45 Session B7 - Empirical methods in software engineering (Chair: Sira Vegas) (Salón de Grados)**

6. Evidence Briefings: Towards a Medium to Transfer Knowledge from Systematic Reviews to Practitioners. Bruno Cartaxo, Gustavo Pinto, Elton Vieira and Sergio Soares. (FP).

**16:45-17:15 Afternoon Break**

**17:15-17:45 Close (Salón de Actos)**

**18:00 Toledo Night Tour**

Bus leaves Hotel Doña Carlota at 18:00 for Toledo Night Tour.
General Information

Venue
ESEIW 2016 (5-9 September) will take place at the Escuela Superior de Informática (the Computer Science Faculty) of the University of Castilla-La Mancha, in Ciudad Real, Spain.

Address
Escuela Superior de Informática -Paseo de la Universidad, 4 13071 Ciudad Real - Spain - P: +34 926 29 53 00
Website: http://webpub.esi.uclm.es/eng
Social Events and Travel Suggestions

Sunday 4th, 2016
ISERN Reception (included in ISERN registration).

Monday 5th, 2016
ISERN Banquet (included in ISERN registration).

Tuesday 6th, 2016
ISERN Tapas Tour (included in ISERN registration).

Wednesday 7th, 2016
ESEM Reception (included in IDOESE, IASESE, MEGSUS, PROMISE, ESEM registration).

Thursday 8th, 2016
ESEM Banquet (included in ESEM registration (not student registration)).

Friday 9th, 2016
ESEM Toledo Night Tour (included in ESEM registration (not student registration)).

Travel Suggestions
Ciudad Real's railway network is connected by train with:
- Toledo (http://www.toledo-turismo.com/en);
- Cordoba (http://english.turismodecordoba.org/);

If you are planning to spend some extra time in Spain, we would like to suggest that you visit these three amazing cities. You can find more information about your trip on the RENFE website (http://www.renfe.com) or by calling +34 902320320, where your questions will be answered in English, French or Spanish. For further information, you can also contact Creotour Viajes by email (info@creoviajes.com) or visit them in Calle Calatrava, 25, 13003 Ciudad Real (Tlf: +34 926 92 09 18, +34 926 92 09 28), or visit their website http://www.creoviajes.com.
ESEIW Rooms

Location: Escuela Superior de Informática (E.S.I.)

E.S.I. MODULE B (PARKING)

FIRST FLOOR

SECOND FLOOR

AULA 1.1

AULA 2.1
Supported By: