| Artigo  | Contribution<br>Type                | Focus Area   | Research<br>Type  |
|---|-------------------------------------|--|---|
| A Gap-Analysis-based<br>Framework for Evolution and<br>Modernization (2012)                   | Process                             | Approach to<br>modernize legacy<br>systems to another<br>platform/architect<br>ure | Evaluation research:  E  Conceptual proposal                      |
| An empirical comparison of static and dynamic business process mining (2011)                  | Process  E  TOOL                    | Approach to support business process   | Evaluation research:  E  Experience paper:  E  Solution proposal: |
| Crossing the boundaries while analyzing heterogeneous component-based software systems (2011) | Process E TOOL                      | Approach to<br>modernize legacy<br>systems to another<br>platform/architect<br>ure | Evaluation research:  E  Experience paper:                        |
| Integrating event logs into KDM repositories  | Metamodel  E  Model transformati on | Extension of ADM's metamodels  | Evaluatio<br>n<br>research:                                       |
| Process mining through<br>dynamic analysis for<br>modernising legacy systems<br>(2012)        | Metamodel Process E                 | Approach to support business process   | Evaluatio<br>n<br>research:                                       |

|  | TOOL<br>E<br>Model<br>transformati<br>on |  | Solution<br>Proposal                   |
|--|--|--|--|
| A Component-Oriented Metamodel for the Modernization of Software Applications (2011)                               | Metamodel E TOOL E Model transformati    | Extension of ADM's metamodels  | Evaluation research: Solution Proposal |
| A family of case studies on business process mining using MARBLE (2012)  | TOOL E PROCESS                           | Approach to support business process                                   | Evaluatio<br>n<br>research:            |
|  | E  Model transformati on                 |  | Experienc e paper:                     |
| A Model Driven Modernization Approach for Automatically Deriving Multidimensional Models in Data Warehouses (2007) | PROCESS  E  Model transformati on        | Approach to modernize legacy systems to another platform/architect ure | Conceptu<br>al<br>proposal:            |
| An ADM Approach to Reengineer Relational Databases towards Web Services (2007)                                     | PROCESS  E  Model transformati on        | Approach to modernize legacy systems to another platform/architect ure | Evaluatio<br>n<br>research             |
| An Extensible  | TOOL                                     | Approach to  | Evaluatio                              |

| Architecture for Detecting<br>Violations of a Cloud<br>Environment's Constraints<br>During (2011)           | E<br>PROCESS                               | modernize legacy<br>systems to another<br>platform/architect<br>ure                | n<br>research<br>E<br>Solution<br>proposal: |
|---|--|--|---|
| Automatic conformance checking for migrating software systems to cloud infrastructures and platforms (2012) | TOOL<br>E<br>PROCESS                       | Approach to<br>modernize legacy<br>systems to another<br>platform/architect<br>ure | Evaluation research  E  Opinion Paper       |
| Database schema<br>elicitation to modernize<br>relational databases (2012)                                  | Process  E  Tool  E  Model transformati on | Approach to<br>modernize legacy<br>systems to another<br>platform/architect<br>ure | Evaluatio<br>n<br>research                  |
| Extracting Business Rules from Existing Enterprise Software System (2012)                                   | Process                                    | Approach to support business process  E  Extension of ADM's metamodels             | Evaluatio<br>n<br>research                  |
| Harmonized and<br>Reversible development<br>framework for HLA based<br>interoperable (2011)                 | Process                                    | Approach to modernize legacy systems to another platform/architect ure             | Conceptu<br>al<br>proposal:                 |

|  |  | T  | 1   |
|--|--|--|---|
|  |  |  | Opinion paper   |
| Implementing Business Process Recovery Patterns through QVT Transformations (2010)                 | PROCESS                                | Approach to support business process   | Evaluatio<br>n<br>research  |
| MoDisco- A generic<br>and extensible framework for<br>model driven reverse<br>engineering (2010)   | TOOL                                   | Approach to<br>modernize legacy<br>systems to another<br>platform/architect<br>ure | Conceptu<br>al<br>proposal:                                       |
| PRECISO- A reengineering process and a tool for database modernisation through web services (2009) | PROCESS E TOOL                         | Approach to modernize legacy systems to another platform/architect ure             | Evaluation research:  E  Experience paper:  E  Solution proposal: |
| A model-driven process for the modernization of component-based systems (2012)                     | PROCESS                                | Approach to modernize legacy systems to another platform/architect ure             | Evaluation research:  E Experience paper:  E Solution proposal:   |
| An Architecture-<br>Driven Modernization Tool<br>for Calculating Metrics (2010)                    | TOOL  E  METRICS E  Model transformati | Applicability  | Evaluatio<br>n<br>research:                                       |

|                           | on           |                    |             |
|---------------------------|--------------|--------------------|-------------|
| An overview of the        | PROCESS      | Applicability      | Opinion     |
| knowledge discovery meta- | 1110 0200    |                    | Paper       |
| model (2012)              |              |                    | Taper       |
| MARBLE. A Business        | PROCESS      | Approach to        | Evaluatio   |
| Process Archeology Tool   | I ROCLSS     | support business   | n           |
|                           | E            |                    | research:   |
| (2011)                    | E            | process            | research:   |
|                           | Model        |                    |             |
|                           | transformati |                    |             |
|                           |              |                    |             |
| T 1 A                     | on           | A 1.               | E 1         |
| Empirical Assessment      | Model        | Approach to        | Evaluatio   |
| of Business Model         | transformati | support business   | n           |
| Transformations Based on  | on           | process            | research:   |
| Model Simulation (2012)   |              |                    |             |
|                           | Model        | Applicability      | Conceptu    |
| Knowledge Discovery Metam | transformati |                    | al          |
| odel-ISO IEC 19506 (2011) | on           |                    | proposal:   |
|                           |              |                    |             |
| MICDOC AND 1.1            | No. J. I     | A                  | Carres      |
| MIGROS: A Model-          | Model        | Approach to        | Conceptu al |
| Driven Transformation     | transformati | modernize legacy   |             |
| Approach of the User      | on           | systems to another | proposal:   |
| Experience of Legacy      |              | platform/architect |             |
| Applications (2012)       | E            | ure                |             |
|                           | Process      |                    |             |
| MIMOS System              | PROCESS      | Annyoooh to        | Experienc   |
| MIMOS. System             | E            | Approach to        | -           |
| Model-Driven Migration    |              | support business   | e paper:    |
| Project (2013)            | TOOL         | process            |             |
| AOUI                      | E            |                    |             |
| AQUI                      | MODEL        |                    |             |
|                           | transformati |                    |             |
|                           | on           |                    | 0.1.        |
| Modernization of          | PROCESS      | Approach to        | Solution    |
| Legacy Web Applications   |              | modernize legacy   | proposal    |
| into Rich Internet        | E            | systems to another |             |
| Applications? (2011)      | Tool         | platform/architect |             |
|                           | E            | ure                |             |
|                           | Model        |                    |             |
| AQUI                      | transformati |                    |             |
|                           | on           |                    |             |
| On the use of ADM to      | Model        | Approach to        | Opinion     |
| Contextualize Data on     | transformati | modernize legacy   | Paper       |
| Legacy Source Code for    | on           | systems to another |             |
| Software Modernization    |              | platform/architect |             |
| (2009)                    | E            | ure                |             |
|                           |              |                    |             |
| AQUI                      | PROCESS      |                    |             |

| PRESSWEB: A Process to Reengineer Legacy Systems towards Web Services (2007)  AQUI | PROCESS                                     | Approach to<br>modernize legacy<br>systems to another<br>platform/architect<br>ure | Opinion<br>Paper            |
|--|---|--|-----------------------------|
| Reconstructing Architectural Views from Legacy Systems (2012)  AQUI                | Model<br>transformati<br>on<br>E<br>PROCESS | Approach to<br>modernize legacy<br>systems to another<br>platform/architect<br>ure | Evaluatio<br>n<br>research: |