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Titolo	Muscle Shoals. Letter addressed to Senator Charles S. Deneen by the Secretary of War ... in response to his request regarding the proposed offer of the Farmers' Federated Fertilizer Corporation for the Muscle Shoals project together with an analysis of the proposed offer and a detailed analysis by Lieut. Col. M.C. Tyler, Corps of Engineers ... Presented by Mr. Deneen. January 6, 1927. -- Ordered to be printed
Pubbl/distr/stampa	[Washington, D.C.] : , : [U.S. Government Printing Office], , 1927
Descrizione fisica	1 online resource (67 pages) : tables
Collana	Senate document / 69th Congress, 2nd session. Senate ; ; no. 189 [United States congressional serial set] ; ; [serial no. 8712]
Altri autori (Persone)	DeneenCharles Samuel <1863-1940> (Republican (IL)) TylerM. C
Soggetti	Advisory boards Bonds Dams Fertilizer industry Government contractors Hydroelectric power plants Hydroelectric power plants - Brazil Incorporation Leases Public contracts Water-power Maintenance Repairing Legislative materials.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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Autore	Meroni Giovanni
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Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Constraints Violations -- 4.4 E-GSM Expressiveness -- 4.4.1 Activity Exclusion -- 4.4.2 Activity Overlap -- 4.4.3 Responded Existence -- 4.4.4 Constrained Iteration -- 4.5 Summary -- 5 A Method to Easily Configure the Monitoring Platform -- 5.1 Steps -- 5.1.1 Enriching the BPMN Process Model With Artifacts -- 5.1.2 Extracting the Artifact-oriented Process View -- 5.1.3 Generating the E-GSM Process Model -- 5.1.4 Generating the E-GSM Artifact Lifecycle Model -- 5.1.5 Generating the Artifact-to-object Mapping Criteria -- 5.2 Proof of Correctness -- 5.2.1 Trace Conformance -- 5.2.2 Execution Flow Alignment -- 5.2.3 Artifact Lifecycle Alignment -- 5.3 Summary -- 6 Assessing and Improving Process Monitorability -- 6.1 Formalizing the Capabilities of the Smart Objects -- 6.1.1 Smart Objects Ontology -- 6.1.2 State Detection Rules Ontology -- 6.2 Problem Setting -- 6.3 Process Monitorability Assessment -- 6.4 Process Monitorability Improvement -- 6.4.1 Process model improvement -- 6.4.2 State detection rules improvement -- 6.4.3 Infrastructure improvement -- 6.5 Summary -- 7 Implementing and Evaluating Artifact-driven Process Monitoring -- 7.1 SMARTifact: an Artifact-driven Monitoring Platform -- 7.2 Simulated Environment -- 7.3 Field Evaluation -- 7.4 Summary -- 8 Conclusions -- 8.1 Answers to the Research Questions -- 8.2 Achievements in Runtime Process Monitoring -- 8.3 Achievements in the Integration Among BPM and IoT -- 8.4 Current Limitations and Future Work -- A Criteria to Evaluate the Integration Among BPM and IoT -- A.1 Placing sensors in a process-oriented way (IC1) -- A.2 Monitoring manual activities (IC2) -- A.3 Connecting analytical processes with the IoT (IC3) -- A.4 Exploiting the IoT to do process correctness check (IC4) -- A.5 Dealing with unstructured environments (IC5) -- A.6 Managing the links between micro processes (IC6) -- A.7 Breaking down end-to-end processes (IC7) -- A.8 Detecting new processes from data (IC8) -- A.9 Specifying the autonomy level of smart objects (IC9) -- A.10 Specifyingthe socialroles of smart objects (IC10) -- A.11 Concretizing abstract process models (IC11) -- A.12 Dealing with new situations (IC12) -- A.13 Bridging the gap between process-based and event-based systems (IC13) -- A.14 Improving online conformance checking (IC14) -- A.15 Improving resource utilization optimization (IC15) -- A.16 Improving resource monitoring and quality of task execution (IC16) -- B BPMN to E-GSM Translation Proof of Correctness -- B.1 Process Model -- B.1.1 Data Component -- B.1.2 Blocks -- B.1.3 Process Model -- B.2 Trace Conformance -- B.3 Conformance Preservation of the Translation -- References.

Sommario/riassunto

This book proposes a novel technique, named artifact-driven process monitoring, by which multi-party processes, involving non-automated activities, can be continuously and autonomously monitored. This technique exploits the Internet of Things (IoT) paradigm to make the physical objects, participating in a process, smart. Being equipped with sensors, a computing device, and a communication interface, such smart objects can then become self-aware of their own conditions and of the process they participate in, and exchange this information with the other smart objects and the involved organizations. To allow organizations to reuse preexisting process models, a method to instruct smart objects given Business Process Model and Notation (BPMN) collaboration diagrams is also presented. The work constitutes a revised version of the PhD dissertation written by the author at the PhD School of Information Engineering of Politecnico di Milano, Italy. In 2019, the PhD dissertation won the “CAiSE PhD award”, granted to outstanding PhD theses in the field of Information Systems Engineering.
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