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(54) Title: MULTICORE PROCESSOR FAULT DETECTION FOR SAFETY CRITICAL SOFTWARE APPLICATIONS

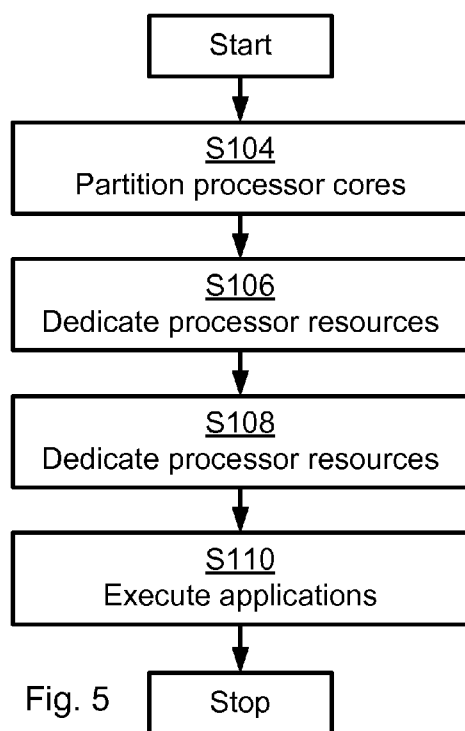


Fig. 5

(57) Abstract: There is provided multicore processor fault detection during execution of safety critical software applications in a multicore processor environment. A method for multicore processor fault detection during execution of safety critical software applications in a multicore processor environment involves dedicating the complete resources of at least a part of at least one processor core to execution of diagnostics software application whilst dedicating remaining resources to execution of a safety-critical software application, thereby enabling parallel execution of the diagnostics software application and the safety-critical software application. There is also provided a controller for multicore processor fault detection during execution of safety critical software applications in a multicore processor environment. The controller comprises a multicore processor environment. The controller may be part of a control system. The method may be provided as a computer program.



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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	REICHENBACH F ET AL: "Multi-core Technology -- Next Evolution Step in Safety Critical Systems for Industrial Applications?", 13TH EUROMICRO CONFERENCE ON DIGITAL SYSTEM DESIGN: ARCHITECTURES, METHODS AND TOOLS; 1-3 SEPT. 2010, LILLE, FRANCE, IEEE, US, 1 September 2010 (2010-09-01), pages 339-346, XP031785121, ISBN: 978-1-4244-7839-2 abstract section III "Analyzing Multi-Core For Safety Critical Embedded Systems" ----- -/--	1-15
☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents :		
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Information on patent family members

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