

Curriculum Vitae

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Rabie Ben Atitallah is currently an Associate Professor in Computer Science at the University of Valenciennes and member of LAMIH laboratory within the DIM (Decision, Interaction, and Mobility) team. He is also an associated member of DaRT project at the INRIA Lille-Nord Europe research institute. Previously, he received his PhD degree in Computer Science from the University of Lille1 in March 2008. Between March 2008 and August 2009, he had a post-doctoral position at INRIA Lille-Nord Europe and the University of Valenciennes.

Education:

2008: PhD in Computer Science at the Université des Sciences et Technologies de Lille 1 (USTL). Working in INRIA Lille-Nord Europe on MPSoC modeling and simulation, performance and energy estimation. (Very Honourable)

2004: Research Master in Electronics at the National School of Engineering of Sfax. (Very Honourable)

2003: Graduated as an Electrical Engineer at the National School of Engineering of Sfax. (Honourable)

Research topics:

Embedded system design, MultiProcessor System-on-Chip (MPSoC), Low power-aware design, Virtual prototyping, Simulation, Dynamic reconfigurable computing, and Design space exploration.

Recent Publications:

- ABDALLAH A., GAMATIE A., BEN ATITALLAH R., DEKEYSER J-L. (2012). Abstract Clock-based Design of a JPEG Encoder. IEEE Embedded Systems Letters, ISSN © IEEE PRESS. (ACCEPTED FOR PUBLICATION).
- BEN ATITALLAH R., PIEL E., NIAR S., MARQUET P., DEKEYSER J-L. (2011). A Fast MPSoC Virtual Prototyping for Intensive Signal Processing Applications. Microprocessors and Microsystems Embedded Hardware Design Journal (MICPRO), 36 issue 3, pp. 176–189.
- TRABELSI C., BEN ATITALLAH R., MEFTALI S., JEMAI A., DEKEYSER J-L. (2011). A Model-Driven Approach for Hybrid Power Estimation in Embedded Systems Design. EURASIP Journal on Embedded Systems.
- GAMATIE A., LEBEUX S., PIEL E., BEN ATITALLAH R., ETIEN A., MARQUET P., DEKEYSER J-L. (2009). A model driven design framework for regular and massively parallel embedded applications. ACM Transactions in Embedded Computing Systems (TECS).
- RETHINAGIRI S-K., BEN ATITALLAH R., SENN E., DEKEYSER J-L., NIAR S. (2012). An Efficient Power Estimation Methodology for Complex RISC Processor based Embedded Platforms. 22nd Great Lakes Symposium on VLSI (GLSVLSI 2012), Salt Lake City, Utah, USA, mai.

- MHEDBI I., BEN ATITALLAH R., JEMAI A. (2012). Dynamic Slack Reclamation Strategy for Multiprocessor Systems. The 16 IEEE Mediterranean Electrotechnical Conference, Hammamet, Tunisia, mars.
- AFONSO G., BEN ATITALLAH R., DEKEYSER J-L. (2012). Software Implementation vs. Hardware Implementation: The Avionic Test System Case-Study. Architectural Support for Programming Languages and Operating Systems (ASPLOS 2012), London, United Kingdom, mars.
- RETHINAGIRI S-K., BEN ATITALLAH R., SENN E., NIAR S., DEKEYSER J-L. (2011). Fast and Accurate Hybrid Power Estimation Methodology for Embedded Systems. Conference on Design & Architectures for Signal & Image Processing, Tampere FL, novembre.
- RETHINAGIRI S-K., BEN ATITALLAH R., DEKEYSER J-L. (2011). A System Level Power Consumption Estimation for MPSoC. International Symposium on System-on-Chip 2011 (SOC 2011), Tampere, Finland, octobre.
- RETHINAGIRI S. K., BEN ATITALLAH R., NIAR S., SENN E., and DEKEYSER J-L. Hybrid System Level Power Consumption Estimation for FPGA-Based MPSoC, 29th IEEE International Conference on Computer Design (ICCD), October 2011, Amherst, MA, USA.
- AFONSO G., BEN ATITALLAH R., LOYER A., DEKEYSER J-L., BELANGER N., RUBIO M. (2011). A prototyping environment for high performance reconfigurable computing. 6th International Workshop on Reconfigurable and Communication-centric Systems-on-Chip, Montpellier, France, June.
- AFONSO G., BEN ATITALLAH R., BELANGER N., RUBIO M., STILKERICH S., DEKEYSER J-L. (2011). Toward Generic and Adaptive Avionic Test Systems. NASA/ESA Conference on Adaptive Hardware and Systems, San Diego, California, USA, June.
- HARB N., NIAR S., SAGHIR M., ELHILLALI Y., BEN ATITALLAH R. (2011). Dynamically Reconfigurable Architecture for a Driver Assistant System. IEEE Symposium on Application Specific Processors (SASP 2011), San Diego, California, USA, June.
- LIU H., NIAR S., BEN ATITALLAH R. (2010). An efficient scalable MPSoC architecture for dynamic task distribution. PROGRAM for Research on Embedded Systems & Software, STW.ICT, Veldhoven, Nederland, November.
- LANGE T., HARB N., NIAR S., LIU H., BEN ATITALLAH R. (2010). An Improved Automotive Multiple Target Tracking System Design. 13th EUROMICRO Conference on Digital System Design DSD'2010, Lille France, September.
- AFONSO G., BEN ATITALLAH R., BELANGER N., RUBIO M., DEKEYSER J-L. (2010). An Efficient Design Methodology for Hybrid Avionic Test Systems. 15th IEEE International Conference on Emerging Technologies and Factory Automation, Bilbao, Spain, September.
- CHTIOUI H., BEN ATITALLAH R., NIAR S., DEKEYSER J-L., ABID M. (2009). A Dynamic Hybrid Cache Coherency Protocol for Shared-Memory MPSoC. 12th EUROMICRO Conference on Digital System Design, University Of Patras, Greece, August.

Research activities:

- Member of the LAMIH Laboratory since 2009
- Associated member of the INRIA Lille Nord Europe DaRT project team since 2008
- Affiliated member of HiPEAC (European network of excellence) since 2007
- Member of ASR and SoC-SIP GDRs (French research net-works of the CNRS)

Scientific animation:

- Member of the organization committee of RAPIDO workshop 2010/2011 in conjunction with the HiPEAC conference
- Member of the organization committee of Euromicro DSD and SEAA 2010
- Member of the organization committee of International ModEasy'07 Workshop

Collaborations:

- North Carolina State University
- University of Nice Sophia Antipolis
- University of Bretagne Sud
- University of Rennes
- EADS Innovation Works (Germany and France)
- Eurocopter Inc.
- Nolam Embedded Systems
- Thales Communications

PhD and Master's degree students

- ❖ Santhosh Kumar Rethinagiri: 3rd year PhD, co-advising with Pr. Jean-Luc Dekeyser and Pr. Smail Niar, ANR OpenPeople funding.
- ❖ George Afonso: 2nd year PhD, co-advising with Pr. Jean-Luc Dekeyser, EADS IW and ANRT funding.
- ❖ Omar Souissi: 1st year PhD, co-advising with Pr. Abdelhakim Artiba, Ministerial and Eurocopter funding.
- ❖ Venkatasubramanian Viswanathan: 1nd year PhD, co-advising with Pr. Jean-Luc Dekeyser, Nolam Embedded Systems and ANRT funding.
- ❖ Yomna Ben Jmaa: Master degree student, ANR OpenPeople funding, collaboration with ENIS.
- ❖ Zeineb Baklouti: Master degree student, Eurocopter funding, collaboration with ENIS.

Teaching:

Tools for embedded systems design (VHDL and SystemC), Operating system and microcomputer, C++ language, and network programming.