# LIST OF INDUSTRIAL CONTRACTS
# (limited to 8)

Nom/*Last name*: MINET Prénom/*First name*: Pascale

1. *For CELAR (Centre Electronique de L'ARmement), French MoD*, from September 2002, realisation of a demonstrator of mobile ad-hoc network consisting of 10 routers and 8 VAIOs and iPAQs equipped with a wireless IEEE 802.11b card and implementing the OLSR routing. Targeted application domain is this of military tactical networks. This demonstrator allows us to evaluate the performances of OLSR routing (latency, useful throughput, mobility). We are now enhancing this demonstrator with OLSR on IPv6, multicast routing and group membership protocol, QoS routing, secured routing, OSPF gateway. I am in charge of this project.

2. *ARCADE Project, ARchitecture de Contrôle Adaptative Des Environnements IP*, from January 2001 to January 2003, with LIP6, France Telecom, Thomson-CSF Telecommunications, and QoSMIC. I was in charge with Khaldoun Al-Agha of mobility management integrating macro-mobility (inter-domain mobility managed by Mobile IP) and micro-mobility (mobility within an ad-hoc network managed by OLSR (Optimized Link State Routing)). http ://www-rp.lip6.fr/Arcade.

3. *AEE Project, Architecture Electonique Embarquée*, in 1999 and 2000 : with PSA, Renault, Aerospatiale, SAGEM, Siemens, Valeo, IRCyN, Ecole Centrale de Nantes, LORIA, INRIA. Our contribution mainly concerned the validation of properties of an operational architecture according to a deterministic approach. http ://aee.inria.fr.

4. *ATR Project, Accord Temps Réel* in 1999 and 1997, with Axlog, Dassault-Aviation, LIX, LIAFA, University Joseph Fourier, Thomson-CSF. Modular Avionic and Air Traffic Control must provide critical services that are distributed, real-time and must be able to tolerate partial failures. I contributed to the specifications of the ATR (Real-Time Agreement) problem, uniform atomic real-time broadcast. I also contributed to the design and specification of the real-time component of this uniform atomic broadcast. This algorithm has been implemented on a platform by AXLOG and submitted to scenarios representative of modular avionic or air traffic control.

5. *For IPSN (Institut de Protection et de Sûreté Nucléaire)* : in 1996, I was the scientific head of the analysis of a commercial solution for the command-control of the water system in a nuclear plant. This analysis by retro-engineering was performed using the TRDF method (Real-Time, Distributed computing, Fault tolerance) I contributed to.

6. *For Dassault Aviation* : in 1994 and 1995 in the modular avionic domain, I participated to the capture phase of application needs as well as to the selection of concurrency control and reliable broadcast algorithms. With the proved dimensioning, it becomes possible to predict real-time performances of the system as a function of the architecture retained. I specified a feasibility oracle allowing to determine whether any applicative task set, tasks having a graph structure, meets its real-time constraints in the

presence of urgent tasks and failures. A pre-industrial prototype has been realised by Dassault-Aviation.

7. *For CNES (Centre National d'Etudes Spatiales)* : in 1993, I studied distributed real-time systems and future embedded applications. I was in charge of the fault-tolerance and concurrency control topics. I also contributed to the elaboration of the methodological guide identifying the necessity of a provable system engineering.

8. *Esprit Project LAURA* : in 1993, I was in charge of the design and specification of an adaptive routing protocol for radio LANs with mobile nodes. This work gave rise to the routing standardised in the ETSI HIPERLAN standard. The detailed specifications were used by DETEXIS for an implementation on a pre-industrial prototype.