CURRICULUM VITAE
MIRKO ORSINI

Personal information:

MIRKO ORSINI

Date of birth: 12 April 1977

Nationality: Italian

Known languages: Italian, English

Current position: Co-founder and Chairman of the Board of the

Innovative SME DataRiver Srl

Via Emilia Est, 985 - 41122 Modena - Italia

Phone: (+39) 059 7400905

E-mail: mirko.orsini@datariver.it

Website: http://www.datariver.it

Qualifications

- **PhD in Computer Engineering and Science** (13 February 2009) in "INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)" (http://www.ict.unimo.it) awarded by the International Doctorate School of the Faculty of Engineering, University of Modena and Reggio Emilia.
  Dissertation: "Query Management in Data Integration Systems: the MOMIS approach"; advisor: Prof. Domenico Beneventano, University of Modena and Reggio Emilia - IT, and co-advisor: Prof. Isabel Cruz, University of Illinois at Chicago - US.

- **Degree in Computer Engineering** (27 October 2004) at University of Modena and Reggio Emilia (final grades: 100/110).
  Dissertation: "Interoperability between heterogeneous ontologies: the OWL - ODLI3 translators"; supervisor: prof. Sonia Bergamaschi.

Professional titles:

Professional Qualified Engineer from University of Modena and Reggio Emilia in the first session of the State exam in 2005.

Biography

Mirko Orsini is co-founder and CEO of DataRiver S.r.l. (www.datariver.it), an Innovative SME founded in 2009 as a Spin-Off of the University of Modena and Reggio Emilia. Since 2004, he is a member of the DBGroup Research Group at the University of Modena and Reggio Emilia, led by Prof. Sonia Bergamaschi. He has participated to national and international research projects and co-authored research papers in international conference and journals.

In 2008 he was "visiting researcher" at ADVIS Lab (ADvances in Information Systems), a research laboratory of the University of Illinois at Chicago (UIC), led by Prof. Isabel Cruz.

In 2009, he was awarded the PhD degree in "ICT - Computer Engineering and Science" by the "International Doctorate School in Information and Communication Technologies", University of Modena and Reggio Emilia.

The main area of his scientific expertise covers Data Integration, Clinical Data Management, Big Data Analytics, Internet of Medical Things (IoMT). His industrial research activities refer to the design, development and experimentation of software platforms for automatic collection and integration of data from medical systems and devices, mobile devices (smartphones and wearables), information systems and web data sources, as well as sensor networks and production lines. The overall aim is providing innovative solutions for collecting, integrating and analyzing Big Data both for Healthcare and Industry 4.0.

Since 2009, he is manager and coordinator of the internal R&D projects at DataRiver, as well as the industrial research projects commissioned to DataRiver by pharmaceutical, biotech and healthcare service companies, CROs, research institutes, scientific societies, hospitals and universities.

From 2011, he is Director of the DATARIVER Research Laboratory of the Emilia-Romagna High Technology Network, accredited as a Research and Innovation Facility for industrial research and technology transfer.

Since 2015, he is Director of the Center for Research and Innovation (CRTT) DATARIVER, registered by the Lombardy Region as part of the QuESTIO program (Quality Evaluation in Science and Technology for Innovation Opportunity).

From 2018 to 2021 he was member of the Board of the "Health & Wellbeing" Clust-ER and since 2020 he is the Chair of the "SalusTECH" Value Chain, with the aim of designing Smart Health solutions to support clinical research and patients, through the promotion of a healthy, independent and active life.

He has contributed to the preliminary and foundational work of the regional Clust-ER "Innovation in services" aimed at the creation of innovative services based on Big Data Analytics and IoT technologies.

Since 2017 he is Manager of the CRO DataRiver, certified by AIFA as Contract Research Organization (CRO) for Data Management and Statistical Analysis in clinical research.

He is DataRiver's representative in the Big Data Value Association (BDVA), a public-private European association promoting research and innovation on Big Data, with more than 180 members among companies and research organizations in 28 countries.

He is DataRiver's representative in the Competence Center Industry 4.0 BI-REX (Big Data Innovation & Research Excellence) led by the University of Bologna, a public-private partnership of 61 actors, in which DataRiver participates as a technology provider. BI-REX is a highly specialized center born in 2018 to provide assistance and guidance in the adoption of enabling technologies in the Industry 4.0 field such as Big Data, Cyber Security, Additive Manufacturing, Predictive Maintenance and Collaborative Robotics, but also training on Industry 4.0 and the launch of innovation, industrial research and experimental development projects.

He is a member of the international IEEE P1752 working group - the Standard for Mobile Health Data of the IEEE Engineering in Medicine and Biology Society aimed at defining a common and shared semantic representation for data and metadata generated by mobile and wearable devices, through the definition and promotion of the openmHealth open standard.

WORK EXPERIENCE

- **2009 – present**. **Co-Founder, Executive Director** and **Chairman of the Board of Directors** of the Innovative SME **DataRiver S.r.l.** (www.datariver.it), founded in June 2009 as a Spin-Off of the University of Modena and Reggio Emilia. He is manager and coordinator of the internal R&D projects at DataRiver, as well as the industrial research projects commissioned to DataRiver by industries and research institutions.

- **2009. Researcher** at the Department of Computer Engineering of the University of Modena and Reggio Emilia. Research grant title: **"Development of methods for semantic reconciliation and exchange of data applied to standards for e-business"** - S.S.D. ING-INF / 05 (Information processing systems).

- **2008. Visiting Researcher** at the ADVances laboratory in Information Systems Research Laboratory (ADVIS) - Department of Computer Science - University of Illinois at Chicago (UIC), led by Prof. Isabel F. Cruz. The research period was financed through the **"Gruppo Giovani Imprenditori" scholarship - Confindustria Modena.**

- **2006-2009. Young researcher** at the "Department of Computer Engineering, University of Modena and Reggio Emilia". A 3-year collaboration agreement for the research activity within the **FIRB NeP4B project (Networked Peers for Business),** funded by MIUR - FIRB 2005.

- **2005-2006. Researcher** at the "Department of Sciences and Methods of Engineering, University of Modena and Reggio Emilia". Collaboration contract for research activities within the regional project **STIL Telematic Tools for the Interoperability of Business Networks: Integrated Digital Logistics for Emilia-Romagna**

- **2004-2005. Researcher** at the "Department of Computer Engineering, University of Modena and Reggio Emilia". Collaboration contract for research activities within the **EU project EU IST SEWASIE (SEmantic Web and AgentS in Integrated Economies).**

Coordination of research projects

Mirko Orsini has been coordinating projects of industrial research, innovation and technology transfer for DataRiver:

- **2018-2022. Scientific coordinator** of the research project "**PLEINAIR (Free And Inclusive Parks in Network for Intergenerational Recreational and Physical Activities)**" coordinated by DataRiver Srl and with scientific partners Future Technology Lab (University of Parma), Teknehub (University of Ferrara), CIRI SDV (Alma Mater Studiorum - University of Bologna), AIAS Bologna Onlus. Funded by the "Call for strategic industrial research projects aimed at the priority areas of the Intelligent Specialization Strategy" - Axis 1 - Action 1.2.2. of the POR FESR 2014-2020 of the Emilia Romagna Region with a contribution of € 799.400.

- **2020-2022. Coordinator** of the research and development team of the **Energy Community Data Platform**, a platform for the integration and management of Big Data of the Energy Communities commissioned by ENEA, the National Agency for New Technologies, Energy and Sustainable Economic Development.

- **2020-2022. Coordinator** of the DataRiver research and development team in the **DEEPMON project: Dynamic EdgE computing for Plant MONitoring**, coordinated by SACMI COOPERATIVA MECCANICI IMOLA SOCIETA 'COOPERATIVA and with the participation of partner companies of the BI-REX consortium.

- **2020-2021. Coordinator** of the DataRiver research and development team in the **BD4M Project: Big Data 4 Manufacturing** project, coordinated by Bonfiglioli Riduttori SpA and with the participation of partner companies of the BI-REX consortium.

- **2020-2021. Coordinator** of the DataRiver research and development team in the **5GConnect Project: Integration of IoT connectivity via 5G network**, coordinated by Bonfiglioli Riduttori SpA and with the participation of partner companies of the BI-REX consortium.

- **2020-2021. Coordinator** of the DataRiver research and development team in the **SEAWALL project: SEAmless loW lAtency cLoud pLatforms**, coordinated by Philip Morris Manufacturing & Tecnology Bologna Spa and with the participation of partner companies of the BI-REX consortium.

- **2020-2021. Coordinator** of the DataRiver research and development team in the **PROBIO project: web-based platform enabling the predictive models of BIg data In Oncology**, coordinated by University of Pittsburgh Medical Center - Italy and with the participation of partner companies of the BI-REX consortium.

- **2018-2019. Coordinator** of the **MAGHD mobile platform development team - Mobile App to Manage Adult Growth Hormone Deficiency**, a clinical study funded by Pfizer, in collaboration with the Department of Biomedical, Metabolic and Neuro Sciences of the University of Modena and Reggio Emilia.

- **2016-2018. Coordinator** of the development team of the **MySAwH** mobile platform - My Smart Age with HIV (www.mysmartage.org), an international clinical study funded by Gilead, in collaboration with the Metabolic Clinic of the University of Modena and Reggio Emilia, the Hospital Clinic & University of Barcelona, the Holdsworth House Medical Practice in Sydney (Australia), the Chinese University of Hong Kong. The MySAwH

platform was awarded the **2016-2017** edition of **the Digital Innovation Award in Healthcare** in the category "services to citizens".

- **2016-2018. Coordinator** of the development team of the web and mobile platform **iCarePlatform**, conceived for managing and optimizing patient support programs, improving the experience of doctors and supporting therapeutic adherence. The industrial research project was commissioned by Caregiving Italia, now an international group Health Network Partners (http://hnpgroup.eu), offering home care and patient support services.

- **2015-2018. Coordinator** of the web platform development team of the **National Register of Scapulo-Humeral Dystrophy (FSHD)** with more than 6,000 patients (www.datariver.it/clinical-data-management/fshd). The FSHD web platform enables the collection, integration and joint analysis of heterogeneous clinical and molecular data for clinical research.

- **2013-2014. Coordinator** of the "Big Data" team of the industrial research project "**Cyber Doctor**", web platform for the automation of dialysis biomedical devices testing realized by Gambro, real-time monitoring of test results and Big Data management. The application was designed in collaboration with Gambro Dasco Spa, Egicon Srl, Pirazzoli Consulting Sas and Damitec Srl.

- **2013-2014. Coordinator** of the industrial research project "**Generating value from Big Data through Business Analytics**" presented by the TELOS network, comprising DataRiver Srl (lead company), Apex Srl and Injenia Srl. Financed by the Call "From production districts to technological districts 2" - ICT / MULTIMEDIA of the Emilia-Romagna Region with a € 84,000 grant for R&D activities on Data Integration, Big Data, Open Data, Business Analytics, Business and Location Intelligence.

- **2011-2014. Coordinator** of the industrial research project **DataRiver Data Integrator** - a € 684,000 funding spread over 4 years of R&D activities concerning an advanced system of integration of traditional and multimedia data. Funded through the Technological Innovation Fund of the Ministry of Economic Development, Law 46/82.

- **2011-2012. Coordinator** of the R&D project of the **MOMIS Data Integration System**. A € 44,000 funding released for investments related to the development of the system received through the 2007-2013 POR-FESR call, ACTIVITY I.2.1 "Support for the start-up of new innovative companies" of the Emilia-Romagna Region.

Participation in research projects

As a member of DBGROUP, Mirko Orsini has taken part to the following National and European research projects:

- **2006-2009. NeP4B (Networked Peers for Business)**, MIUR – FIRB 2005 (2006-2009) (http://www.dbgroup.unimo.it/nep4b) funded research project, coordinated by Prof. Sonia Bergamaschi

- **2005-2006. STIL (Strumenti Telematici per l'Interoperabilità delle reti di imprese: Logistica digitale integrata per l'Emilia-Romagna)**, Emilia-Romagna Region research project (2005-2006) (http://www.stil-project.org/) coordinated by Prof. Domenico Ferrari

- **2005-2006. WISDOM (Web Intelligent Search based on DOMain ontologies)**, MIUR (2005-2006) (http://dbgroup.unimo.it/wisdom) co-financed research project, coordinated by Prof. Sonia Bergamaschi

- **2004-2005. SEWASIE (SEmantic Web and AgentS in Integrated Economies)** EU - IST-2001-34825, (2002-2005) (http://www.sewasie.org) European research project, coordinated by Prof. Sonia Bergamaschi

PUBLICATIONS

Book Chapter

- S. Bergamaschi, D. Beneventano, F. Mandreoli, R. Martoglia, F. Guerra, M. Orsini, L. Po, M. Vincini, G. Simonini, S. Zhu, L. Gagliardelli, L. Magnotta, **From Data Integration to Big Data Integration**. In **A Comprehensive Guide Through the Italian Database Research Over the Last 25 Years**, Springer International Publishing, 2018, Pages 43-59, DOI: 10.1007/978-3-319-61893-7_3

- S. Bergamaschi, D. Beneventano, F. Guerra, M. Orsini, **Data Integration**. In **Handbook of Conceptual Modeling - Theory, Practice, and Research Challenges**, D.W. Embley, B. Thalheim, Eds. Springer, 1st Edition., 2011, XX, 587 p., ISBN: 978-3-642-15864-3

International Journals

- L. Gagliardelli, L. Zecchini, L. Ferretti, D. Beneventano, G. Simonini, S. Bergamaschi, M. Orsini, L. Magnotta, E. Mescoli, A. Livaldi, N. Gessa, P. De Sabbata, G. D'Agosta, F. Paolucci, F. Moretti, **A big data platform exploiting auditable tokenization to promote good practices inside local energy communities**, Future Gener. Comput. Syst. 141: 595-610 (2023). DOI: 10.1016/j.future.2022.12.007

- Bettio, C., Salsi, V., Orsini, M. et al. **The Italian National Registry for FSHD: an enhanced data integration and an analytics framework towards Smart Health Care and Precision Medicine for a rare disease**, Orphanet Journal of Rare Diseases, 16, 470 (2021). DOI: 10.1186/s13023-021-02100-z

- S. Bergamaschi, F. Guerra, M. Orsini, C. Sartori, M. Vincini **A semantic approach to ETL technologies**, **Data & Knowledge Engineering**, Pushing Artificial Intelligence in Database and Data Warehouse Systems, Volume 70, Issue 8, 2011, Pages 717-731, doi: 10.1016/j.datak.2011.03.003

- S. Bergamaschi, E. Domnori, F. Guerra, M. Orsini, R. Trillo, Y. Velegrakis **Keymantic: Semantic Keyword-based Searching in Data Integration Systems**, Proceedings of the VLDB Endowment, Volume 3, Number 2, 2010, Pages 1637-1640, doi: 10.14778/1920841.1921059

- S. Bergamaschi, F. Guerra, M. Orsini, C. Sartori, **Extracting Relevant Attribute Values for Improved Search**, **IEEE Internet Computing**, special issue on Semantic-Web-Based Knowledge Management, vol. 11, no. 5, pp. 26-35, Sept/Oct, 2007, doi: 10.1109/MIC.2007.105

International Conferences

- A. Bellelli, C. Golinelli, M.L. Monzani, S. Pederzoli, E. Magnani, E. Beltrami, M. Pacchioni, M. Orsini, C. Diazzi, S. De Vincentis, V. Rochira, **Smartphone App on Follow-up of Adult Growth Hormone Deficiency (AGHD) Patients: Results From the Management of AGHD (MAGHD) Study**, 25th European Congress of Endocrinology (**ECE 2023**), May 13-16, 2023, Istanbul, Turkey, DOI: 10.1530/endoabs.90.P687

- L. Bacchiani, G. De Palma, L. Sciullo, M. Bravetti, M. Di Felice, M. Gabbrielli, G. Zavattaro, R. Della Penna, C. Iorizzo, A. Livaldi, L. Magnotta, M. Orsini, **SEAWALL: Seamless Low Latency Cloud Platforms for the Industry 4.0,** 2022 5th Conference on Cloud and Internet of Things (**CIoT**), 2022, pp. 90-91, doi: 10.1109/CIoT53061.2022.9766643

- L. Gagliardelli, L. Zecchini, L. Ferretti, D. Beneventano, G. Simonini, S. Bergamaschi, M. Orsini, L. Magnotta, E. Mescoli, A. Livaldi, N. Gessa, P. De Sabbata, G. D'Agosta, F. Paolucci, **ECDP: A Big Data Platform for the Smart Monitoring of Local Energy Communities.** EDBT/ICDT Workshops 2022. Electronic edition, https://ceur-ws.org/Vol-3135/dataplat_short4.pdf

- M.L. Monzani, S. Pederzoli, A. Bellelli, E. Magnani, C. Diazzi, C. Golinelli, M. Pacchioni, M. Orsini, V. Rochira, **Patient-reported outcomes (PRO) in Adult Growth Hormone Deficiency (AGHD) for an improved patients'**

management: results from The Management of AGHD(MAGHD) Study, 24th European Congress of Endocrinology (**ECE 2022**), May 21-24, 2022, Milan, Italy, ENDOCRINE ABSTRACTS (2022) 81 P167 | DOI: 10.1530/endoabs.81.P167

- L. Magnotta, L. Gagliardelli, G. Simonini, M. Orsini, S. Bergamaschi, **MOMIS Dashboard: a powerful data analytics tool for Industry 4.0**, The 25th International Conference on Transdisciplinary Engineering (**TE2018**), Modena, July 3-6, 2018. IOS Press Ebook: Vol. 7: Transdisciplinary Engineering Methods for Social Innovation of Industry 4.0, pp. 1074-1081, doi:10.3233/978-1-61499-898-3-1074

- M. Orsini, M. Pacchioni, A. Malagoli, G. Guaraldi, **My Smart Age with HIV: an innovative mobile and IoMT framework for patient's empowerment**, IEEE 3rd International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (**RTSI 2017**), Modena, September 11-13, 2017, IEEE Xplore Digital Library, DOI: 10.1109/RTSI.2017.8065914

- M. Orsini, E. Calanchi, L. Magnotta, L. Gagliardelli, M. Govi, F. Mele, R. Tupler, **The Italian FSHD Registry: an enhanced data integration and analytics framework for Smart Health Care**, IEEE 3rd International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (**RTSI 2017**), Modena, September 11-13, 2017, IEEE Xplore Digital Library, DOI: 10.1109/RTSI.2017.8065918

- C. Piccinni, M. Orsini, E. Poluzzi, S. Bergamaschi, **PV-OWL - PharmacoVigilance surveillance thrOugh semantic Web-based pLatform for continuous and integrated monitoring of drug-related adverse effects in open data sources and Social media**, IEEE 3rd International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (**RTSI 2017**), Modena, September 11-13, 2017, IEEE Xplore Digital Library, DOI: 10.1109/RTSI.2017.8065931

- F. Guerra, R. Trillo, Y. Velegrakis, E. Domnori, S. Bergamaschi, M. Orsini, **Keymantic: Semantic Keyword-based Searching in Data Integration Systems (Demo Paper)**, 36th International Conference on Very Large Data Bases (**VLDB 2010**), Singapore, September 13-17, 2010

- S. Bergamaschi, F. Guerra, M. Orsini, C. Sartori, M. Vincini, **An ETL Tool based on Semantic Analysis of Schemata and Instances,** Advanced Knowledge-based Systems, Invited Session of the 13th International Conference on Knowledge-based and Intelligent Information & Engineering Systems (**KES 2009**), Santiago, Chile, September 28-30, 2009

- D. Beneventano, M. Orsini, L. Po, A. Sala, S. Sorrentino, **An Ontology-Based Data Integration system for data and multimedia sources**, The 2009 International Workshop on Semantic Computing and Multimedia Systems **IEEE-SCMS 2009**, Held in conjunction with the Third IEEE International Conference on Semantic Computing (ICSC 2009) Berkeley, CA, USA, September 14-16, 2009

- F. Guerra, S. Bergamaschi, M. Orsini, C. Sartori, M. Vincini, **Improving Extraction and Transformation in ETL by Semantic Analysis**, 10th European Conference on Knowledge Management (**ECKM 2009**), Vicenza, Italy, September 3-4 , 2009

- S. Bergamaschi, F. Guerra, M. Orsini, C. Sartori, M. Vincini, **Semantic Analysis for an Advanced ETL framework**, 1st International Workshop on Interoperability through Semantic Data and Service Integration (**ISDSI 2009**), Camogli (Genova), Italy, June 25th, 2009

- D. Beneventano, S. Sorrentino, M. Orsini, L. Po, **The MOMIS-STASIS approach for Ontology-based Data Integration**, 1st International Workshop on Interoperability through Semantic Data and Service Integration (**ISDSI 2009**), Camogli (Genova), Italy, June 25th, 2009

- F. Guerra, S. Bergamaschi, M. Orsini, A. Sala, C. Sartori, **Keymantic: A keyword Based Search Engine using Structural Knowledge**, 11th International Conference on Enterprise Information Systems (**ICEIS 2009**), Milano, Italy, May 6-10, 2009

- I. F. Cruz, P. Lin, M. Orsini, R. Gjomemo, **A Constraint and Attribute Based Security Framework for Dynamic Role Assignment in Collaborative Environments**, 4th International Conference on Collaborative Computing (**CollaborateCom 2008**), Orlando, FL, USA, November 13-16, 2008

- I. F. Cruz, P. Lin, M. Orsini, R. Gjomemo, **A Location Aware Role and Attribute Based Access Control System**, 16th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (**ACM GIS 2008**), Irvine, CA, USA, November 5-7, 2008

- I. F. Cruz, R. Gjomemo, M. Orsini, **A Secure Mediator for Integrating Multiple Level Access Control Policies**, 12th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (**KES 2008**), Zagreb, Croatia, September 3-5, 2008

- D. Beneventano, S. Bergamaschi, C. Nana Rodriguez, M. Orsini, M. Vincini, **Getting Through the THALIA Benchmark with MOMIS,** Third International Workshop on Database Interoperability (**InterDB 2007**). Held in conjunction with VLDB 2007 - 33rd International Conference on Very Large Data Bases. Vienna, Austria, September 24, 2007

- S. Bergamaschi, F. Guerra, M. Orsini, C. Sartori, **Relevant Values: new metadata to provide insight on attribute values at schema level**, In proceedings of the 9th International Conference on Enterprise Information Systems (**ICEIS 2007**), Funchal, Madeira - Portugal, June 12-16, 2007 (p.p. 274-279)

- D. Beneventano, S. Bergamaschi, S. Bruschi, F. Guerra, M. Orsini, M. Vincini, **Instances Navigation for querying integrated data from web-sites**, International Conference on Web Information Systems and Technologies (**WEBIST 2006**), Setùbal, Portugal, April 11-13, 2006

National Conferences

- I.Bartolini, D. Beneventano, S. Bergamaschi, P. Ciaccia, A. Corni, M. Orsini, M. Patella, M.M. Santese, **MOMIS Goes Multimedia: WINDSURF and the Case of Top-K Queries**, 23rd Italian Symposium on Advanced Database Systems (SEBD 2015), Gaeta, Italy, June 14-17, 2015

- S. Bergamaschi, D. Beneventano, A. Corni, E. Kazazi, M. Orsini, L. Po, S. Sorrentino, **The Open Source release of the MOMIS Data Integration System**, 19th Italian Symposium on Advanced Database Systems (**SEBD 2011**), Maratea, Italy, June 26-29, 2011

- D. Beneventano, S. Bergamaschi, M. Orsini, M. Vincini, **MOMIS: Getting through the THALIA benchmark (Demo Paper)**, Eighteenth Italian Symposium on Advanced Database Systems (**SEBD 2010**), Rimini, Italy, June 20-23, 2010

- S. Bergamaschi, F. Guerra, M. Orsini, C. Sartori, M. Vincini, **RELEVANT News: a semantic news feed aggregator**, 4th Workshop on Semantic Web Applications and Perspectives (**SWAP 2007**), Bari, Italy, December 18-20, 2007

- S. Bergamaschi, F. Guerra, M. Orsini, C. Sartori, **A new type of metadata for querying data integration systems**, Proceedings of the Fifteenth Italian Symposium on Advanced Database Systems (**SEBD 2007**), Torre Canne (Fasano, BR), Italy, June 17-20, 2007 (p.p. 266-273)

PhD Thesis

- Mirko Orsini, **Query Management in Data Integration Systems: the MOMIS approach**, PhD thesis in Computer Engineering and Science at the Doctorate School in "INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)" (http://www.ict.unimo.it), University of Modena and Reggio Emilia, Faculty of Engineering – February 13, 2009 (advisor: Prof. Domenico Beneventano, University of Modena and Reggio Emilia, co-advisor: Prof. Isabel Cruz , University of Illinois at Chicago - US). Available at http://www.dbgroup.unimo.it/~orsini/thesis_Mirko_Orsini.pdf

Modena, 06/11/2023   Ing. Mirko Orsini

                                            CEO DataRiver Srl