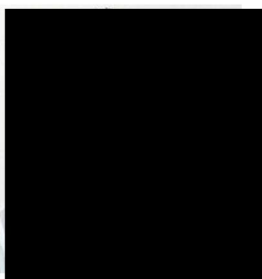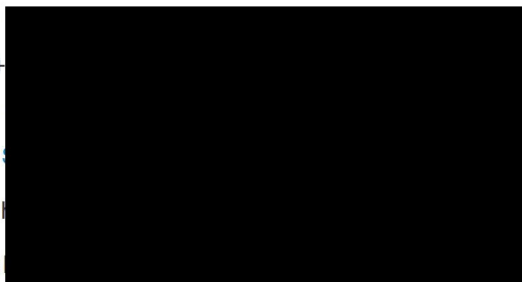## PERSONAL INFORMATION   Claudio Pascarelli

Sex

SUMMARY

I am a mechanical engineer, graduated with honors from the University of Salento (Lecce, Italy). For some years I worked in the construction world dealing with plant design. Since 2013 I have been working at the University of Salento. For several years I worked in the aerospace field dealing with innovative digitization projects in the field of PLM, CAx, KBE/KBM, VR and AR. Since 2019, as co-head of the Cyber Physical Systems (CPS) Lab, I work as Project Manager for several IT research and development projects in the field of remote piloted aircraft (drones), transports, environmental monitoring, healthcare and cyber security.

WORK EXPERIENCE

June 2015 – September 2015

IT consultant

EKA S.r.l. – Engineering Knowledge Accademy (University of Salento Spin-Off)

- CAD Automations for Siemens NX: requirements analysis, mechanical functional specifications and user-defined features design for software customization.

Sector   Industrial consultancy

October 2014 – May 2015

Internship (within post graduate master in PLM)

GE Oil & Gas – Nuovo Pignone – Florence/Bari - ITALY

- CAD Automations for Siemens NX: requirements analysis, mechanical functional specifications and user-defined features design for software customization.

Sector   Oil & Gas Industry

June 2014 - September 2014

Internship (within post graduate master in PLM)

Alenia Aermacchi - Turin - ITALY

- Requirements analysis and functional specifications for a legacy software update
- Definition of software architecture

Sector   Aerospace industry

February 2014 - May 2014

Internship (within post graduate master in PLM)

Blackshape – Monopoli (BA) - ITALY

- Requirements analysis for a Product Lifecycle Management (PLM) platform
- Software benchmarking

Sector   Aerospace industry

September 2009 - April 2013

Freelance engineer

Studio IDeA – Trepuzzi (LE) - ITALY

- 2D CAD
- Design of heating and cooling generation and distribution systems
- Buildings energy performance assessment
- Environmental noise assessment and measurement
- Investments financial assessment
- Topography and cadastre

Sector   Civil engineering

<table>
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RESEARCH EXPERIENCE

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RESEARCH EXPERIENCE ▪

October 2015 – Currently
(72 months: 01/10/2015 – 30/09/2021)

Research Fellow
University of Salento, Department of Engineering for Innovation – Lecce - ITALY

- **2020-2021**: Develompment of the techlogies for the safe integration of sUAS in VLL airspace. **Project AcrOSS** - Environment for Safe Operation of Remotely Piloted Aircraft Systems – Italian PON-PNR
- **2019-2020**: Development of workflow management systems in Healthcare. **Project TALISMAN** - Customized Assistance Technologies for Quality of Life Improvement – Italian PON PNR
- **2018-2019**: Development of traction systems for mobile robots. **Project OmniAGV** - Omnidirectional Automated Guided Vehicles – Apulia Region Innonetwork
- **2017-2018**: Integration of CAx software within Virtual Reality environments. **Project VMAN** - Vitual Manufacturing – Apulia Regional Technology Clusters
- **2016-2017**: UAV flights test procedures and data management. **Project TAKE OFF** - Test and Knowledge-based Environment for Operations, Flight and Facility - Apulia Regional Technology Clusters
- **2015-2016**: Knowledge-based Manufacturing and Product Lifecyle Management. **Project: SPIA** - Aeronautical Innovative Bearing Structures – Italian PON-REC
- Building Information Modelling.
- Web development.

Sector Academic research

May 2013 – May 2015
(24 months: 27/05/2013 – 26/05/2015)

Research collaboration
University of Salento, cPDM Lab – Lecce - ITALY
- Techology foresight and its application to Product Lifecycle Management

Sector   Academic research

July 2012 – September 2012
(4 months: 19/07/2012 - 18/09/2012)

Project worker (Italian "*Contratto di Prestazione d'Opera Occasionale*")
University of Salento, Department of Engineering for Innovation – Lecce - ITALY

- Technical support for the management, coordination and validation of project activities. Project **GSR Model** – SEE Programme

Sector Academic research

June 2010 – June 2011
(12 months: 07/06/2010 - 06/06/2011)

Project worker (Italian "*Contratto di Prestazione d'Opera Coordinata e Continuativa*")
University of Salento, Department of Engineering for Innovation – Lecce - ITALY

- Technical support for the management, coordination and validation of project activities. Project **GSR Model** – SEE Programme

Sector Academic research

EDUCATION ▪

May 2013 – May 2015

Post graduate Master Degree in Product Lifecycle Management   Level 8 QEQ
DHITECH Scarl - Lecce – ITALY

- Products Design and Lifecycle Management
- CAx
- Process modeling
- Informatics
- Technological Foresight

2006-2009

Master Degree in Mechanical Engineering (110+/110)   Level 7 QEQ
University of Salento - Lecce - ITALY

- Machines and products design
- CAx
- Industrial plant management
- Renewable energy and environment
- Industrial energy management
- Fluid dynamics

2001-2006 · Bachelor Degree in Mechanical Engineering (86/110) · Level 6 QEQ

University of Parma - Parma - ITALY

- Mathematics
- Physics
- Chemistry
- Theory of Construction
- Applied mechanics
- Drawing and Computer Aided Design

PERSONAL SKILLS

Mother thongue Italian

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Interaction	Oral production	
English				
B2	C1	B2	B2	B2
French				
C1	B1	C1	C1	A2

Levels: A1/2 Base - B1/2 Intermediate - C1/2 Advanced

Organizational and management skills Excellent organizational and management skills developed thanks to the leaderiship of CPS Lab at the University of Salento from 2019 to 2021

Technical skills
- Good knowledge of Web technologies (HTML5, CSS, JS) and Content Management Systems (Wordpress)

  Porfolio:
  https://idenetwork.it/2019/
  http://www.core-lab.it/
  http://www.takeoff-grottaglie.it/
  https://www.jpaudio.it/

- Excellent knowledge of Microsoft Office tools
- Good knowledge of main modeling languages (UML, BPMN)
- Good knowledge of 2D and 3D CAD (Autodesk Autocad, Siemens NX)
- Basic knowledge of 3D Game Engine (Unity)
- Basic knowledge of C, C++ and Java

FURTHER INFORMATION

Publications **Scientific papers**

1. Avanzini, G., De Luca, V., & Pascarelli, C. (2021, May). Integrated Platform for sUAS Operations in Sensitive Areas with Improved Pilot Situation Awareness. In *2021 IEEE Conference on Cognitive and Computational Aspects of Situation Management (CogSIMA)* (pp. 17-24). IEEE.

2. Corallo, A., Lazoi, M., Papadia, G., & Pascarelli, C. (2020). Action Research on Virtual-Reality-Assisted Product and Process Design. *IEEE Transactions on Engineering Management*.

3. Avanzini, G., De Luca, V., & Pascarelli, C. (2020, September). AR-Based Visual Aids for sUAS Operations in

Security Sensitive Areas. In *International Conference on Augmented Reality, Virtual Reality and Computer Graphics* (pp. 289-298). Springer, Cham.

4. Giannuzzi, M., Papadia, G., & Pascarelli, C. (2020). IC. IDO as a tool for displaying machining processes. The logic interface between Computer-Aided-Manufacturing and Virtual Reality. *Procedia CIRP*, *88*, 145-150.

5. Corallo, A., Esposito, M., Marra, M., & Pascarelli, C. (2019, June). Transmedia Digital Storytelling for Cultural Heritage Visiting Enhanced Experience. In *International Conference on Augmented Reality, Virtual Reality and Computer Graphics* (pp. 221-229). Springer, Cham.

6. Corallo, A., Marra, M., & Pascarelli, C. (2019). Knowledge-Based Manufacturing: Management and Deployment of Manufacturing Rules through Product Lifecycle Management Systems. *Aerospace*, *6*(4), 41.

7. Pascarelli, C., Marra, M., Avanzini, G., & Corallo, A. (2019). Environment for Planning Unmanned Aerial Vehicles Operations. *Aerospace*, *6*(5), 51.

8. Lazoi, M., Corallo, A., Pascarelli, C., Galli, V., & Campanella, M. (2018, June). *Virtual Reality for innovating products and processes design: a spectrum of digital applications and organizational scenarios.* R&D Management Conference 2018 - R&Designing Innovation: Transformational Challenges for Organizations and Society, 2018, Milan (IT), June, 30th - July, 4th (2018).

9. Pascarelli, C., Lazoi, M., Papadia, G., Galli, V., & Piarulli, L. (2018, June). CAD-VR Integration as a Tool for Industrial Assembly Processes Validation: A Practical Application. In *International Conference on Augmented Reality, Virtual Reality and Computer Graphics* (pp. 435–450). Springer, Cham.

10. Marra, M., Pascarelli, C., Lazoi, M., Corallo, A., & Micchetti, F. (2018). Knowledge-based manufacturing: A proposal to manage manufacturing rules. In *DS 92: Proceedings of the DESIGN 2018 15th International Design Conference* (pp. 359-368).

11. Martinez, D.S., Avanzini, G., Primavera, V., Micchetti, F., Pagone, S., Di Martino, A., Marra, M., Pascarelli, C. (2017, November) *Risk Mitigation for Unmanned Air Vehicles Mission Planning*. CAE Conference, 6-7 November 2017, Vicenza, Italy.

12. Mangialardi, G., Di Biccari, C., Pascarelli, C., Lazoi, M., & Corallo, A. (2017, July). BIM and PLM associations in current literature. In *IFIP International Conference on Product Lifecycle Management* (pp. 345-357). Springer, Cham.

13. Marra, M., De Pascalis, R., Pascarelli, C., Michetti, F., & Corallo, A. (2016). Knowledge-based Manufacturing: A system to simplify the management of manufacturing rules. In *International CAE Conference* (pp. 1-6). nd.

14. Corallo, A., Lazoi, M., Pascarelli, C., & Savino, T. (2014). A foresight strategy for ICT scenarios: A PLM application. In *XXV Riunione Scientifica Annuale dell'Associazione Italiana di Ingegneria Gestionale "La manifattura del futuro, il futuro della manifattura"* (pp. 1-6). nd.

15. Corallo, A., Lazoi, M., De Marco, G., Greco, N. C., Manna, M., & Pascarelli, C. (2014, June). A foresight strategy proposal for ICT scenarios definitions: An application for PLM tools and systems. In *2014 International Conference on Engineering, Technology and Innovation (ICE)* (pp. 1-10). IEEE.

16. Costantino, N., Mummolo, G., Pascarelli, C., Pellegrino, R., & Ranieri, L. (2012). A real options–based approach in guaranteed energy savings contracting. *International Journal of Engineering Management and Economics*, *3*(4), 305-325.

17. Ranieri L., Ficarella F., Intini F., Pascarelli C. (2010, November); *Il progetto GSR-MODEL: metodologie e strumenti per la responsabilità sociale negli Enti Pubblici*. Proceedings of the 14th International Fair of Material and Energy Recovery and Sustainable Development "ECOMONDO", 3-6 November 2010, Rimini, Italy.

18. Digiesi, S., Pascarelli, C., Pellegrino, R., & Ranieri, L. (2010, June). Energy recovery from the organic fraction of municipal solid waste: technical, economical and financial assessment of a facility using the Real Options Theory. In *Proceedings of the 4th International Conference on Sustainable Energy & Environmental Protection (SEEP)*.

19. Pascarelli, C., Pellegrino, R., Ranieri L. (2009, Semptember) *Real Options approach to define contracts in energy efficiency projects of industrial plants*. XIV Summer School in Impianti Industriali, 15-19 September 2009, Monopoli, Italy

Dissemination articles

20. ANGELELLI, M., COLUCCI, M., PASCARELLI C. Dispositivi indossabili in sanità. Un'analisi di potenzialità e rischi. SISTEMI&IMPRESA. N.7 October/November 2020.

21. PASCARELLI, C., MARRA, M., LAZOI, M. Dati, informazioni e know how. Progettare con la conoscenza. SISTEMI&IMPRESA. N.8 December 2019/ January 2020.

22. PASCARELLI, C., LAZOI, M. Realtà Virtuale nel Manifatturiero. Le potenzialità della tecnologia. SISTEMI&IMPRESA. N.1 January/February 2019.

Other obtained qualifications
- Auditor / Lead Auditor of systems for the security of information - according to ISO 19011:2018 e ISO 27001:2013 (AICQ SICEV certificate number A27001.21 02.18.5)
- Specialist in Environmental Acoustics.
- Teaching assistant for "Industrial Plants" course (SSD ING-IND /17) at the University of Salento.

I hereby certify that the above statements are true and correct to the best of my knowledge.

I authorize the use of my personal data in accordance with the
Italian Legislative Decree n. 196 - 30 June 2003 "*Codice in materia di protezione dei dati personali*"".

Tutto quanto dichiarato corrisponde a verità, ai sensi del DPR 445/2000

█████████, 10/09/2021   **Signature**