



Press Release

COMAU AND POLITECNICO DI BARI RENEW THEIR COLLABORATION FOR THE JOINT DEVELOPMENT OF INNOVATIVE INDUSTRIAL DIAGNOSTICS, ADVANCED ROBOTICS AND DIGITIZATION PROJECTS

- *The activities, conducted in the “Cognitive Diagnostics” lab, began in 2022 based on a five-year agreement to study and test flexible and intelligent automation solutions for Industry 4.0*
- *A concrete contribution to the development of a robot guidance system based on artificial intelligence, as well as the publication of scientific articles in prestigious international journals are among the results achieved during the first year of collaboration*
- *Four research and development grants in the field of data collection and processing and advanced robotics have been announced for 2023*

BARI and TURIN, February 2, 2023 – Comau and the Politecnico di Bari are renewing their commitment to the five-year collaboration, signed last year, that enabled the launch of the public-private “Cognitive Diagnostics” lab, aimed at developing innovative solutions in the field of data collection and processing, and advanced robotics. These activities are taking place at the Comau Digital Hub in Bari and the Industrial Informatics, Automation and Robotics research laboratories within the Department of Electrical and Information Engineering at the Politecnico di Bari.

The agreement between Comau and the Bari Politecnico also aims to promote the training and job placement of specialized figures in the industrial field. With this in mind, Comau is collaborating with the young talents of the laboratory, as well as hosting trainees and holding teaching seminars, along with some of the University’s faculty. A strategic asset of the laboratory is also represented by the internationalization of the research paths conducted within it, through membership in European and international projects.

In 2023, through the provision of four new grants, research activities will focus on the use of digital technologies for smart manufacturing, in addition to strengthening the projects already underway. In particular, the study of new solutions for data collection and processing are planned, as well as new approaches to simplify robotic programming, to which a focus on optimization of industrial processes will be added.

Regarding the goals achieved in 2022, thanks to the 3 grants provided by Comau and the Politecnico di Bari, it was possible to deepen the study of innovative vision systems. The collaboration between the two entities significantly contributed to the launch of a new Comau robotic vision system, called “MI.RA/Depalletizer”, which exploits the potential of artificial intelligence to automate depalletizing operations, making them more flexible and efficient.

The activities conducted during 2022 also resulted in research results that have been reported in three scientific articles published in prestigious international journals and co-authored by the faculty, university and corporate researchers and junior fellows. In addition, industrial



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applications developed on-site have been integrated within or are being acquired by several different companies. Indeed, the Cognitive Diagnostics lab aims to respond to the growing demand for flexible and advanced automation coming from companies in any sector, with the goal of making Factory 4.0 work processes more efficient through the use of enabling technologies; thus anticipating new production and market trends.

Cognitive Diagnostics is the result of a well-established collaboration, through which Comau and the Politecnico di Bari have pursued joint research projects in the field of flexible automation and intelligent vision systems since 2017. To support companies in the area, the space is also joined by a hub specializing in automation software development and digital manufacturing that Comau opened in the city of Bari in 2019.

“The collaboration between Comau and the Politecnico di Bari, which in 2022 enabled the startup of the Cognitive Diagnostics lab, continues successfully with the development of increasingly advanced projects in the field of industrial diagnostics, robotics and digitization. By contributing to the progress of academic research in the industrial field and the design of manufacturing technologies we can support companies in an increasingly effective and innovative way,” said Andrew Lloyd, Comau Chief of Engineering. *Many of the solutions created in the Bari laboratory have been integrated and tested by Comau at its customers’ sites and have helped them optimize production. The collaboration also gives the opportunity to increase our know-how in strategic and emerging sectors such as logistics, transportation, renewable energy, electrification and the circular economy, thus expanding our business opportunities in Italy and abroad.”*

“The activities of the Public-Private Laboratories of Politecnico di Bari, managed together with important national and international corporate groups, represent a virtuous model of collaboration to enhance academic and industrial research, offer young researchers the opportunity of perfecting their training and promotes opportunities for qualified work,” explained the Dean of the Politecnico di Bari, Francesco Cupertino, who highlighted also: *“In particular, by continuing the strong collaboration between Comau and the Politecnico di Bari, it will be increasingly possible to verify how the most applied scientific research consistently enables the innovation of enabling technologies to offer useful services and processes to industry.”*



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ABOUT COMAU

Comau, a member of Stellantis, is a worldwide leader in delivering advanced industrial automation products and systems. Its portfolio includes technology and systems for electric, hybrid and traditional vehicle manufacturing, industrial robots, collaborative and wearable robotics, autonomous logistics, dedicated machining centers and interconnected digital services and products able to transmit, elaborate and analyze machine and process data. With over 45 years of experience and a strong presence within every major industrial country, Comau is helping manufacturers of all sizes in almost any industry experience higher quality, increased productivity, faster time-to-market and lower overall costs. The company's offering also extends to project management and consultancy, as well as maintenance and training for a wide range of industrial segments. Headquartered in Turin, Italy, Comau has an international network of 6 innovation centers, 5 digital hubs, 9 manufacturing plants that span 13 countries and employ 4,000 people. A global network of distributors and partners allows the company to respond quickly to the needs of customers, no matter where they are located throughout the world. Through the training activities organized by its Academy, Comau is also committed to developing the technical and managerial knowledge necessary for companies to face the challenges and opportunities of Industry 4.0.

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ABOUT POLITECNICO DI BARI

Il Politecnico di Bari è stato istituito nel 1990 ed è il più giovane tra i tre Politecnici italiani; unico del Meridione d'Italia. La sua origine trova storia e riconoscimento nelle attività e prestigio della Facoltà di Ingegneria ereditata dall'Università di Bari con corsi erogati sin dall'inverno 1943-44, nella più recente Facoltà di Architettura, istituita nel 1989 e nella II Facoltà di Ingegneria di Taranto, istituita nel 1991. Il Politecnico è una università tecnica che, sulla base di solide tradizioni, innovazione, efficacia della ricerca e formazione di eccellenza, fonda i propri elementi connotativi. Oggi il Politecnico di Bari ha strutturato la propria organizzazione su base dipartimentale, con l'aggregazione di 5 grandi dipartimenti: Dipartimento di Ingegneria Elettrica e dell'Informazione; Dipartimento di Meccanica, Matematica e Management; Dipartimento Interateneo di Fisica Michelangelo Merlin; Dipartimento di Scienze dell'Ingegneria Civile e dell'Architettura; Dipartimento di Ingegneria Civile, Ambientale, del Territorio, Edile e di Chimica. Conta 10 corsi di laurea triennale; 12 magistrali; 1 magistrale a ciclo unico; 6 corsi di dottorato per circa 11.000 studenti.