# CARNOT RESEARCH PVT. LTD.

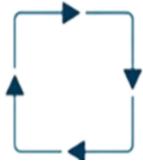
**COMPANY PROFILE** 



HAUZ KHAS, DELHI

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# **Founders**



Amit Oberoi Founder



Having over 25 years of diverse experience in the Indian Army, I've held various senior roles, including Senior Director, Instructor, and Commanding Officer, specializing in IT, Cyber Security, and Data Analytics.

### **Expertise**

My expertise lies in computer networks, probability theory, and machine learning algorithms, focusing on cybersecurity. I prioritize Organizational Behavior with a people-centric approach for project success.



Brejesh Lall Co Founder

SR. PROFESSOR

He completed his PhD in Multirate Signal Processing from IIT Delhi in 1997. He worked at Hughes Software Systems for eight years before joining IIT Delhi as a faculty member in 2005.

### **Expertise**

He has led various research projects relating to signal processing and object tracking. He has mentored startups and served as an expert in government and private agencies. He specializes in Computer Vision, AI, ML, immersive technologies, and NLP

# **Business Description**

EMPOWERING INDIVIDUALS AND ORGANIZATIONS TO LEVERAGE CUTTING EDGE RESEARCH AND ENABLE INNOVATION.

RIGHT MIX OF ACADEMICS AND INDUSTRY PROFESSIONALS. KEY DIFFERENTIATOR IS OUR ABILITY TO PROVIDE MANAGED RESEARCH FOR SERVING YOUR INNOVATION NEEDS.

RESEARCH AREAS: ACTIVE IN A WIDE VARIETY OF RESEARCH AREAS WITH MAJOR FOCUS ON COMPUTER VISION AND NATURAL LANGUAGE PROCESSING.



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### What We Do

We are a team of professors, scientists, and engineers from the top IITs in the country. We are passionate about conducting deployable research and innovating deep-tech products in machine learning and deep learning, including NLP. The team members have over 120 years of experience and hold multiple patents and papers in the top journals and conferences.

### **Mission**

Carnot's mission is to work with companies and organizations of all sizes, from startups to Fortune 500 companies to government agencies. We apply AI to design and develop advanced solutions to complex, challenging industry problems.



# INTRODUCTION OF OUR TEAM







**Dr. Shailesh Kumar**Industry Expert



Dr. Kanica Sachdev Research Associate



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# **Computer Vision**

We use state of art approaches in computer vision and deep learning to help organizations extract, analyze and understand information from images & videos. By integrating computer vision technology into existing systems, organizations can automate and improve speed of various mechanical processes and also reduce operational costs. Our R&D team is constantly evaluating and testing latest approaches, taking on new client challenges in different areas.





**FACE RECOGNITION** 



**EMOTION RECOGNITION** 



**OBJECT DETECTION** 



**VIDEO ANALYTICS** 



**DEPTH ESTIMATION** 

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# **Natural Language Processing**

Carnot conducts research in NLP with the goal of making machines read, understand and communicate in human language more effectively. We help organizations in deriving valuable insights hidden in unstructured data – text, email, customer reviews, social media, audio, images, and videos. Organizations can derive a number of benefits by integrating NLP capabilities into existing systems, like cost control, faster processing and smoother integration of data analysis capabilities. NLP is especially useful for organizations that analyze or consume complex documents and texts, or rely on this process in some form.





SPEECH RECOGNITION



**SENTIMENT ANALYSIS** 



OCR



**TEXT GENERATION** 



**MACHINE TRANSLATION** 

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# **PROJECTS**

# 2020

CR-VISION: Open source and extensive collection of modules for various computer vision activities.



# Feb 2021

**5G Training Content Creation** for the engineers of Oppo Mobiles India Pvt Ltd.

# Jun 2021

Voice to Avatar Animation Tool Development: Provided research and blueprint architecture to American Teleconferencing Services Ltd.



### Jul 2021

Research Consultancy to Credext Technologies Pvt Ltd for NLP algorithms in bad conditions.

# 2021

**Playground:** A demonstration of deep-learning algorithms running directly in the browser.



# Present

**CR-Wavelets:** Python library that enables building wavelet processing based application which are GPU powered



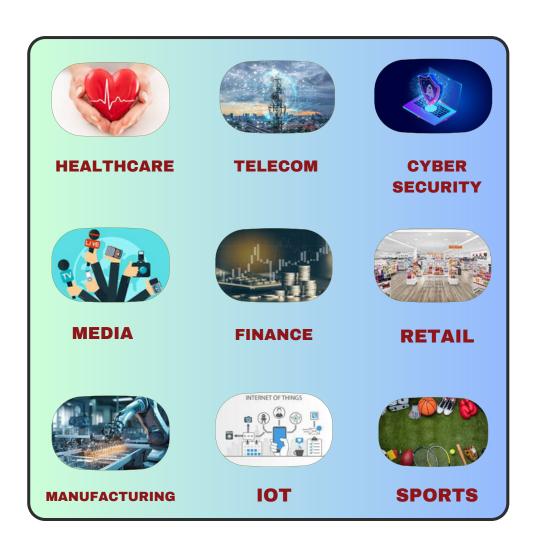
# Present

CR-Sparse: Python library that enables efficiently solving a wide variety of sparse representation-based signal processing problems.

# PRODUCTS & SERVICES

We develop deep-tech products for AI, Computer Vision and NLP based requirements.

We provide research consultancy, industry skilling and IP development services across industries.



# THANK YOU!

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