Prasanna Ramanan S
Director – Product & Technology Management,
Agrisavant Pvt. Ltd.

Mr Prasanna Ramanan is a seasoned engineering professional with over 13 years of global experience in product design, development, and validation. Holding a Master's in Automotive Technology from VIT (in collaboration with ARAI) and a Bachelor's in Mechanical Engineering from Anna University, he has worked extensively across automotive and AgTech domains.

Prasanna has held various senior roles at Cummins Inc., where he led the development of turbocharger technologies for major clients like Mahindra, Tata Motors, Scania, and Volvo. His innovations include performance-boosting nozzle and shroud technologies and efficient integration strategies that enhanced engine fuel economy and emissions compliance. As Innovation Group Leader at Cummins, he doubled invention disclosures by fostering a strong R&D culture.

Currently, as Director at Agrisavant Pvt. Ltd., he leads product and technology strategy for AI/ML-based precision farming solutions that support sustainable agriculture through weather-informed nutrient and pesticide management.

With deep expertise in simulation modelling (CFD, FEA), product life cycle management, and cross-functional leadership, Prasanna brings a rare blend of technical depth and strategic vision. His work bridges engineering excellence and market impact, contributing meaningfully to sustainable technologies and future-ready solutions.

Powering Progress: Prasanna Ramanan and the Engineering of India's Innovation Frontier

In the corridors of cutting-edge engine design and fluid dynamics, few Indian minds have left a trail as inspiring and versatile as **Mr Prasanna Ramanan S**. A mechanical engineer by training and a new product strategist by excellence, his journey from the labs of Vellore to leadership in global mobility technologies reflects the spirit of *Viksit Bharat*—a nation rising through homegrown innovation, scientific rigor, and cross-border collaboration.

With over **13 years of industry experience**, including a long and impactful stint at **Cummins Inc.**, and his current leadership at **Agrisavant Pvt. Ltd**, Mr. Ramanan exemplifies what it means to turn ideas into impact.

Foundations of a Futurist

Mr Ramanan's academic credentials reveal a deep commitment to the science of engines and mobility. He holds a **Master's degree in Automotive Technology** from **Vellore Institute of Technology** (in collaboration with ARAI) and a **Bachelor's degree in Mechanical Engineering** from **Karpagam College of Engineering**, affiliated with Anna University. Even early in his academic life, he displayed a keen focus on combining theoretical models with practical performance outcomes.

This dual lens—systems-level thinking and hands-on application—has defined his career across domains such as **computational fluid dynamics (CFD)**, **product design**, **platform strategy**, and **business innovation**.

Engineering at the Frontier: The Cummins Era

Mr Ramanan spent more than a decade at **Cummins Inc.**, rising through the ranks in multiple engineering and leadership roles. As a **Technical Project Leader**, **Senior Engineer**, and later as a **Technical Specialist**, he played a pivotal role in the design and deployment of **turbocharging solutions** for some of India's most trusted commercial vehicles—from **Mahindra** and **Tata Motors** to **Volvo** and **Scania**.

Some of his hallmark contributions include:

- **Turbocharger integration** for 4.5L and 6.7L diesel engines,
- Design of **fixed nozzle turbocharger technologies** that enhanced fuel economy,
- Development of **multi-clearance shroud technology** for Variable Geometry Turbochargers (VGT),
- Strategic use of **CAE tools (CFD/FEA)** for aerodynamic and thermal optimizations.

Through these contributions, he not only helped companies meet **stringent emission norms**, but also improved engine **efficiency**, **reliability**, and **cost-effectiveness**—hallmarks of *Make in India* excellence.

Simulation to Sustainability: An Agile Mind in Motion

Mr Ramanan's expertise in **computational simulations** gave him a powerful edge in a highly competitive field. As a **Thermal and Fluid Science Engineer**, he:

- Used CFD to refine nozzle profiles,
- Developed virtual testing environments,
- Integrated advanced meshing techniques and turbulence modeling,
- Validated virtual results against physical data with scientific rigor.

This ability to **simulate, validate, and optimize** engineering systems is critical in modern product development, reducing lead times, prototyping costs, and environmental impact—exactly what India needs as it transitions to clean and connected mobility solutions.

From Engineer to Ecosystem Builder

What sets Mr Ramanan apart is his growth from a problem solver to a **solution architect and business leader**. His current role as **Director of Product and Technology Management at Agrisavant Pvt. Ltd.** represents a bold foray into **AgriTech**, where he is applying engineering precision to **sustainable farming**.

There, he leads the development of an **AI/ML-powered vision model** that helps farmers optimize fertilizer and pesticide use by accounting for **weather variability**—a tool that not only boosts crop yield but also champions **environmental stewardship**.

He has also served as the **New Product Business Development Leader at DFMEA Technosol**, where he identified **market gaps**, led **competitive analysis**, and drove **growth strategies** for technology adoption in new domains.

Innovation as a Culture

At Cummins, Mr Ramanan played a dual role as an **Innovation Group Leader**—an auxiliary but impactful responsibility where he nurtured a culture of **continuous improvement** and **IP generation**. Under his guidance, the rate of **invention disclosures doubled**, setting a new benchmark in the company's R&D ethos.

He worked with multi-disciplinary teams to:

- Identify **technology gaps**,
- Conceptualize **disruptive designs**,
- Champion **design thinking and agility** in a traditionally rigid industry.

Such efforts reflect his understanding that innovation is not just about products—it's about **people, processes, and platforms**.

Vision for a *Viksit Bharat*

Mr Ramanan envisions a **Viksit Bharat** where engineers don't just build machines—they build ecosystems. His career is a testimony to this vision. Whether it's cleaner engines, smarter farms, or more agile product cycles, his approach is rooted in **interdisciplinary integration**, **data-driven decision-making**, and a strong **sense of responsibility to society**.

In his words: *"Tomorrow's Bharat doesn't just need scientists—it needs systems thinkers who can see the full picture and build for resilience, not just performance."*

As he looks ahead, he plans to:

- Expand his work in **precision agriculture and sustainability**,
- Mentor young engineers to adopt **simulation-first design thinking**,
- Strengthen **industry-academia linkages** to fast-track innovation to market,
- Advocate for **agile engineering models** in traditional manufacturing ecosystems.

Concluding Reflection: The Designer of Tomorrow

Mr Prasanna Ramanan is not just designing components—he is **designing futures**. His story is a masterclass in **how to evolve as a professional**: from CFD engineer to project leader, from turbochargers to tech-for-agriculture, from internal combustion engines to intelligent sustainability tools.

He symbolizes the ideal *Rising Star of Viksit Bharat*:

- Technically grounded
- Globally aware
- Socially responsible
- Innovation-driven