Dr Deepak Akiwate
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Dr Deepak Akiwate is a University Fellow at the Acoustic Research Centre, University of Salford, UK, specializing in aeroacoustics with a focus on rotor noise, propeller-wing interaction, and advanced air mobility systems. He holds a PhD in Mechanical & Aerospace Engineering from IIT Hyderabad, supported by the prestigious Prime Minister's Fellowship. His pioneering research spans noise prediction models, anechoic wind tunnel design, and additive manufacturing for acoustic materials.

Previously, Dr Akiwate served as Research Fellow at the Rolls-Royce University Technology Centre (University of Southampton), where he contributed to noise analysis for next generation aeroengines and developed core noise prediction tools. His work with institutions like NASA, Rolls-Royce, and Boeing underscores his expertise in acoustic measurement and modelling.

A recipient of the Young Professional Award from I-INCE (Madrid, 2019) and multiple Research Excellence Awards, he has over 10 peer-reviewed journal publications and several international conference presentations. Dr Akiwate actively mentors PhD students and contributes to strategic research planning. He is also the Principal Investigator of an InnovateUK knowledge transfer grant in collaboration with GreenJets UK.

His interdisciplinary research bridges academia and industry, making significant strides in quieter and more efficient aviation technologies.

Whispers of the Sky: Dr Deepak Akiwate and the Future of Silent Flight

In the quiet corridors of sound research, where equations shape how we hear machines and how machines listen back, a young Indian scientist is pushing the boundaries of silence. From the windswept test beds of the UK to the computational models of flight in India, **Dr Deepak Akiwate** is scripting a revolutionary future in **aeroacoustics**—the science of sound in motion.

Currently a **University Fellow at the Acoustic Research Centre, University of Salford (UK)**, and formerly associated with **Rolls-Royce's University Technology Centre**, Dr Akiwate is not only decoding how aircraft generate noise but also how to minimize it—transforming tomorrow's aviation into a blend of performance, efficiency, and tranquillity.

His story is one of relentless curiosity, rigorous research, and a rare combination of theory and hands-on innovation—qualities that make him a deserving honouree in *Rising Stars of Viksit Bharat*.

From Kolhapur to the World: A Flight Rooted in Curiosity

Raised in Maharashtra's Kolhapur district, Dr Akiwate's early academic journey was shaped at **Shivaji University**, where he earned a **Gold Medal** in MTech (Mechanical Design). But it was at **IIT Hyderabad**, under the prestigious **Prime Minister's Fellowship Scheme for Doctoral Research**, that he took flight—literally and figuratively.

His doctoral work wasn't just an academic exercise. It was a fusion of **additive manufacturing** and **aeroacoustics**—developing novel sound-absorbing structures for aerospace applications. His work with **Eaton Technologies** and the **Government of India** laid the groundwork for lightweight, efficient, and customizable acoustic panels suited for engine filters, aircraft cabins, and beyond.

His trajectory embodies the dream of *Atmanirbhar Bharat* in science—an Indian mind contributing to global challenges.

Sound Meets Science: Taming the Noise of Flight

At a time when **Advanced Air Mobility (AAM)**—think drones, air taxis, and electric vertical take-off and landing (eVTOL) vehicles—is transitioning from concept to cockpit, Dr Akiwate is pioneering the understanding of **propeller-wing interaction noise** and **rotor tonal and broadband noise**.

From 2020 to 2023, as a **Research Fellow at the Institute of Sound & Vibration Research (ISVR), University of Southampton**, he worked closely with **Rolls-Royce Plc**, where he led multiple projects, including:

- Core noise prediction methods for **UltraFan™ engines** (next-gen turbofans),
- Development of propeller noise simulation tools (VN41M and VN02),
- Acoustic source breakdown using real engine data—from **NASA's Stennis Space Centre** to **Derby test beds**.

Today, at Salford, he is developing **new wind tunnel facilities**, formulating **analytical noise models**, and mentoring future researchers—working on InnovateUK-backed projects that bridge government, academia, and industry.

When Noise Tells a Story: Innovation Through Research

Dr Akiwate's work is not about eliminating noise but understanding its **language**. Every decibel holds information—about turbulence, material behaviour, design flaws, and potential improvements. His contributions help translate that language into **quieter, safer, and more efficient aircraft**.

His **peer-reviewed publications**—in journals like *Applied Acoustics*, *Journal of Sound and Vibration*, *International Journal of Aeroacoustics*, and more—showcase deep analytical skills combined with experimental finesse.

He's also a **principal investigator** on collaborative projects with **GreenJets UK**, a new-age aerospace startup focusing on decarbonizing flight through sustainable propulsion systems. Whether it's **developing noise prediction methods**, **evaluating overlapping propellers**, or **engineering acoustic materials**, his research shapes not just machines—but policies, passenger comfort, and environmental impact.

Awards, Recognitions & Reverberations

Dr Akiwate's excellence has been recognized consistently:

- **University Fellowship** at Salford (2024–2029),
- **Young Professional Award** by I-INCE (Spain, 2019),
- **Research Excellence Award** (IIT Hyderabad, 2017 & 2019),
- Gold Medal (M.Tech, 2014),
- PI on InnovateUK's **Accelerated Knowledge Transfer Grant** (2024),
- 15+ international conference papers, including **AIAA/CEAS**, **INTER-NOISE**, **WESPAC**, and **ICSV**.

These accolades are not merely trophies—they're milestones in a journey of applied science with societal consequences.

Building India's Future—Quietly, Yet Impactfully

Despite working from the UK, Dr Akiwate remains deeply rooted in India's scientific ecosystem. He represents the **emerging face of Indian aerospace research**—a domain traditionally dominated by global giants.

His doctoral innovations in **additive manufacturing of acoustic panels**, and his continued collaborations with **Indian institutes and scholars**, highlight his commitment to **Make in India** and **Design for the World**.

In the coming years, his vision includes:

- Establishing a **Global Aeroacoustics Research Network** with Indian students,
- Developing **cost-effective acoustic testing infrastructure** for Indian universities,
- Supporting **startup innovations** in drone and e-mobility technologies through sound science.

The Future Is Quieter—and Brighter

As urban air mobility becomes real, as electric planes hum over cities, and as space tourism inches closer, **aeroacoustics will define how peacefully we coexist with technology**. In this emerging realm, Dr Deepak Akiwate's work is foundational.

In his hands, sound is not a nuisance but a **narrative**—a way to shape the future of mobility. His is a voice we need in the science of silence.