

## TECH BYTES

### Readying zinc-air batteries for prime time

WHILE LITHIUM-ION BATTERIES currently dominate the market, their high cost, limited resource availability and safety present major challenges that zinc-based alternatives can address. Towards this, Hindustan Zinc has joined hands with IIT Madras to develop zinc-based battery technologies. The tie-up aims to develop a 1 kWh electrically-rechargeable zinc-air



Arun Misra, CEO, Hindustan Zinc

battery prototype.

Zinc-air batteries are emerging as a viable alternative, known for their long-duration storage capabilities, durability and affordable alternative to lithium-ion batteries. "Zinc, a critical metal across numerous industries, is set to play a crucial role in the global energy transition. Our partnership

with IIT Madras will advance research on zinc-air battery technology," said Arun Misra, CEO, Hindustan Zinc.

### Tata Elxsi's platform for digital twins

TATA ELXSI HAS introduced an XR platform for digital twins and remote 3D collaboration. Powered by Qualcomm technologies, Coalesce is an immersive solution that brings together spatial computing, digital twins and simulations. It facilitates reviews of product models and supports collaboration features for sharing text/audio comments, notes, and screen recordings with globally dispersed teams. It is targeted at automotive, manufacturing, rail,

and high-tech industries.

Aditya S Chikodi, VP & head - Industrial Design, Engineering, & XR, Tata Elxsi said, "Coalesce introduces a new approach to digital twins and performance simulation, pushing the boundaries of XR in the product development process."

### A digital human for senior care

MEET YANA, AN AI-powered app from CareFlick that provides support to seniors and caregivers, bringing emotional intelligence and practical assistance to the caregiving process. Available on iOS and Android, the digital tool uses patient and caregiver data to personalise care plans. According to

the CareFlick founder Abhishek Mohanty, Yana was developed to address a critical global challenge: the rapidly ageing population and the increasing caregiving burden. "Yana acts as a reliable companion for seniors. Whether it's reminding someone to take their medication, keeping track of their daily well-being, or simply being there for a chat, Yana ensures seniors are never alone," he added.

