

FISCAL YEAR 2023

INNOVATION ACTIVITY



Technology Transfer & Commercialization

We help university researchers protect their intellectual property, evaluate its commercial potential and license these novel technologies to industry to produce products.

11

INVENTION DISCLOSURES

New technologies are reported to the technology transfer office for evaluation, intellectual property protection and licensing.

140

TOTAL STATS

22

INVENTORS

Inventions often involve multiple researchers from across the university's departments, colleges and campuses.

192

TOTAL STATS

6

PATENT APPLICATIONS

If the invention is eligible for patent protection, a patent application is filed with the U.S. Patent and Trademark Office (USPTO).

50

TOTAL STATS

5

DEPARTMENTS

Research in departments from all three campuses are creating new, innovative technologies every day

28

TOTAL STATS

U.S. ISSUED PATENTS

To see all of Embry-Riddle's patents, check out the *Inventing Tomorrow* wall located in the Student Union — Daytona Beach campus.



FY23 PATENT PORTFOLIO

ISSUED PATENTS

- ▶ **U.S. 11,329,384** Z-Axis meandering patch antenna and fabrication thereof | Eduardo Rojas, Carlos Mejias
- ▶ **U.S. 11,088,316** Helical dielectric elastomer actuator | Daewon Kim
- ▶ **U.S. 10,933,977** Systems and methods for noise mitigation for hybrid and electric aircraft | Lenny Gartenberg, Richard P. Anderson, Borja Martos
- ▶ **U.S. 10,904,573** Reduced multiplicative complexity discrete cosine transform (DCT) circuitry | Sirani Kanchana Mututhanthrige Perera
- ▶ **U.S. 10,275,219** Bit-serial multiplier for FPGA applications | Akhan Almagambetov, Holly R. Ross
- ▶ **U.S. 10,151,772** Hot wire anemometer | Michael S. Potash, Alfred D. Helfrick
- ▶ **U.S. 10,071,855** Floating active baffles, system and method of slosh damping | Daewon Kim, Rudy L. Baum, Vijay Santhanam, Balaji Sivasubramanian, Sathya Gangadharan
- ▶ **U.S. 10,071,825** Hybrid magneto-active propellant management device for active slosh damping in spacecraft | Balaji Sivasubramanian, Leader Paul, Sathya Gangadharan
- ▶ **U.S. 9,845,600** Highly vented truss wall honeycomb structures and methods of fabrication | David J. Sypek
- ▶ **U.S. 9,625,913** System and method for robust nonlinear regulation control of unmanned aerial vehicles using synthetic jet actuators | Vladimir V. Golubev, William MacKunis
- ▶ **U.S. 9,586,632** Optimizing jets for wake control of ground vehicles | Domenic Barsotti, Sandra Boetcher
- ▶ **U.S. 9,534,608** Multi-stage axial compressor with counter-rotation | Vinod Gehlot, Magdy S. Attia, Divyam Garg
- ▶ **U.S. 9,369,160** Communication system using signal modulation | William C. Barott
- ▶ **U.S. 9,353,754** Multi-stage axial compressor with counter-rotation using an accessory drive | Vinod Gehlot, Magdy S. Attia
- ▶ **U.S. 9,254,922** Hybrid assembly for an aircraft | Richard Anderson, Lori Costello, Charles Eastlake, Glenn P. Greiner
- ▶ **U.S. 9,102,326** Hybrid clutch assembly for an aircraft | Richard Anderson, Charles N. Eastlake, Matt Gonitzke, Glen P. Greiner
- ▶ **U.S. 8,998,126** Lift generating device | Juan A. Alvarado Valverde
- ▶ **U.S. 8,095,314** Generation of four dimensional grid of probabilistic hazards for use by decision support tools | Ian A. Wilson
- ▶ **U.S. 7,184,883** GPS-based steering needle instrument | Carl Edward Wischmeyer

PENDING PATENT APPLICATIONS*

- ▶ **U.S. 2021/0197967** UAS detection and negation | Houbing Song, Yongxin Liu, Jian Wang
- ▶ **U.S. 2021/0371119** Systems and methods for suppressing noise from an aircraft engine | Reda Mankbadi
- ▶ **U.S. 2022/0091156** Electromagnetic slosh and liquid position detection | Eduardo Rojas, Bogdan Udrea, Daniel Sommer, Nicholas Moline
- ▶ **U.S. 2022/0186947** Phase Change Material and Applications | Sandra Boetcher, Kashif Nawas, Melissa Messenger, Casey Troxler, Thomas Freeman, Rafael Rodriguez

*Patent applications that have not yet published for public inspection are not listed here