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Integrated Biometrics Co-Founder Fred Frye Promoted to Chief Scientist

Biometric industry visionary Frye kicks off IB's 20th anniversary by driving new biometric identity management solutions

SPARTANBURG, S.C., March 1, 2022 – Integrated Biometrics (IB), the world leader in mobile FBI-certified biometric fingerprint scanners, today announced the promotion of Fred Frye to Chief Scientist. An IB co-founder and former CTO, the promotion enables Frye to focus on new product development.

With 30 years of technology industry experience, including 20 years of innovation in biometrics, Frye pioneered fingerprint acquisition solutions through the development of electroluminescent film science and the adoption of thin film transistors. He is the holder of multiple technology patents and is the inventor of an adaptive circuit to enable the dynamic capture of both dry and wet fingerprints. A noted technology expert, Frye led development of IB's proprietary light-emitting sensor (LES) technology that meets the stringent fingerprint image certification requirements of the FBI with the sensor being approximately the thickness of a human hair.

Fred is responsible for the commercial development of light-emitting sensor applications for biometric acquisition and a host of other identity technologies that took IB from operating out of a garage in its early days to being named to the Inc. 5000 list of fastest-growing companies for the last six years running– Shawn O'Rourke

As further proof of his visionary leadership, Frye led the creation of IB's biometric presentation attack detection (PAD) technology, the world's strongest spoof prevention for FBI-certified fingerprint scanners. Using a combination of electrical characteristics of the skin and deep-learning artificial intelligence (AI) software, the PAD capability utilizes sophisticated algorithms and AI along with LES film-based spoof detection for the highest level of live finger detection and fake finger prevention.

"Fred is responsible for the commercial development of light-emitting sensor applications for biometric acquisition and a host of other identity technologies that took IB from operating out of a garage in its early days to being named to the Inc. 5000 list of fastest-growing companies for the last six years running," said Integrated Biometrics CEO Shawn O'Rourke. "As we mark our 20th year in operation, we're recognizing Fred's many remarkable achievements. He has essentially always been IB's chief scientist, and this formal transition will allow him to focus on what he does best—develop disruptive biometric identification technologies that have led to our leadership position in the industry."

"IB's momentum began with a meeting with U.S. DOD," recalled Frye. "They wanted a mobile scanner you could put in your pocket and connect to a cell phone. At that time, scanners were huge and normally in offices on desks. Using our LES technology and a thin-film camera, we invented the first FBI-certified mobile fingerprint system. We essentially took the scanner out of the office and put it on the belt or in the pocket of officials. The device reduced the size and weight of fingerprint scanners by 90 percent compared to existing optical scanners."

Frye added that IB is currently working on several exciting new technologies, from bezel-less scanners and nano technologies to antimicrobial solutions especially important in the current environment.

“I’m honored by IB’s recognition and proud of the work we’ve accomplished to date. I anticipate the new role will allow me greater opportunity to pursue my passions and continue to advance our biometric capabilities for easier and more accurate, indestructible, high quality, and affordable solutions for our customers in law enforcement, national ID, election integrity, and border control,” Frye said.

Frye holds a master’s degree in Electrical Engineering with a focus on Computer Engineering and Science from the University of South Carolina-Columbia.

About Integrated Biometrics

Integrated Biometrics (IB), a pioneer in biometric fingerprint technology, designs and manufactures advanced, high-resolution touchless and FBI-certified contact identity solutions for government, law enforcement, military, social services, and a wide range of commercial applications. IB’s lightweight scanners, supported by our patented light-emitting sensor (LES) technology, outperform traditional fingerprint devices in size, power consumption, portability, and reliability. Global organizations rely on IB’s products to enroll and verify identities quickly and accurately, even in remote locations under extreme conditions. Commercial enterprises, government and financial services organizations depend on IB to build innovative, secure applications to establish identity in accordance with national and international standards.