Neurotechnology Ranked First Overall in NIST IREX 10 Evaluation

Neurotechnology's latest iris recognition algorithm achieved first position in all NIST IREX 10 evaluation categories for single-eye and two-eye accuracy.

Neurotechnology is a developer of high-precision algorithms and software based on deep neural networks and other AI-related technologies.

VILNIUS, LITHUANIA, May 28, 2026 /EINPresswire.com/ -- Neurotechnology, a provider of deep-learning-based solutions and high-precision biometric identification technologies, today announced that the company's latest iris recognition algorithm achieved the highest rankings across all reported accuracy metrics of the National Institute of Standards and Technology (NIST) Ongoing Evaluation of Iris Recognition (IREX 10).

The NIST IREX 10 evaluation is the industry benchmark for measuring the performance of iris recognition algorithms using large-scale, real-world datasets in one-to-many (1:N) identification and investigation scenarios. In the most recent results, Neurotechnology's latest submission, neurotechnology_020, demonstrated the highest level of accuracy across the board.

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>
> *Evaldas Borcovas, Head of Biometrics Research at Neurotechnology*

"Our latest submission achieved the top position while tripling the matching speed from the nearest competitor, establishing a new industry standard," said Evaldas Borcovas, Head of Biometrics Research at Neurotechnology. "This achievement demonstrates that the next generation of iris recognition must be defined by both peak precision and high-speed performance."

Top Accuracy Across All Reported Metrics

Neurotechnology's latest algorithm was evaluated on a dataset of 1 million iris images from

500,000 individuals. Performance was measured using two primary accuracy metrics: Detection Error Tradeoff (DET) Accuracy and Ranked Accuracy, each assessed in single-eye and two-eye identification scenarios. Across all four evaluations, the company's submission was ranked as the most accurate among all participating developers.

 DET Accuracy (Identification)
This metric evaluates the algorithm's effectiveness in high-volume, automated identification systems, such as national ID programs and border control. Neurotechnology achieved the best results not only at the headline FNIR@FPIR 0.01 operating point but also across the reported DET curves for single-eye and two-eye identification.

 Ranked Accuracy (Investigation)
This metric is critical for human-in-the-loop systems, including forensic and criminal investigation workflows where a human examiner reviews a list of potential candidates. It measures how often the correct identity appears within the top-ranked search results. Neurotechnology's algorithm achieved the lowest miss rates at Rank 1, Rank 10 and Rank 100 in both single-eye and two-eye scenarios.

These results reinforce Neurotechnology's position as a consistent leader in biometric benchmarks. The company is an active participant in multiple NIST evaluations, including MINEX III, PFT III, FRIF TE E1N, FRTE, FATE, ELFT, and SlapSeg III, where its algorithms regularly rank among the world's top performers.
Neurotechnology's new algorithm will be included in the next MegaMatcher license upgrades. MegaMatcher solutions are used in diverse applications ranging from national identity and voter management to law enforcement and border security.

About Neurotechnology

Neurotechnology is a developer of high-precision algorithms and software based on deep neural networks and other AI-related technologies. The company was launched in 1990 in Vilnius, Lithuania, with the key idea of leveraging neural network capabilities for various applications, such as biometric person identification, natural language processing (NLP), computer vision, and artificial intelligence. The company's solutions and products have been used in more than 140 countries worldwide and in many national-scale projects for national ID, passports, elections, law enforcement and border control, including India's Aadhaar program, general elections in Ghana and Liberia, voter deduplication for the Democratic Republic of the Congo and other projects that collectively process the biometric data of nearly two billion people.

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