

CNN-Transformer Hybrid Model Towards Automated Droplet Image Quality Assessment of Portable Imaging Flow Cytometer

Afrin, Fariha; Ndubuisi Ezechukwu, Dismas; **Le Moullec, Yannick; Pardy, Tamas; Rang, Toomas; Koel, Ants** IEEE EUROCON 2025 - 21st International Conference on Smart Technologies 2025 / 6 p <https://doi.org/10.1109/EUROCON64445.2025.11073334>

CogniFlow: integrated modular system for automated droplet microfluidic bioanalysis

Jõemaa, Rauno; Afrin, Fariha; Gyimah, Nafisat; Ashraf, Kanwal; **Pärnamets, Kaiser;** Giese, Lucas; Rocancourt, Mathieu; **Pardy, Tamas** EUROSENSORS XXXVI : abstract book 2024 / PT6.188, p. 453-454 <https://doi.org/10.5162/EUROSENSORSXXXVI/PT6.188>

Deep-learning based blood cells classification and initial edge device implementation

Islam, Md. Raisul; **Le Moullec, Yannick; Afrin, Fariha;** Ahmed, Faisal 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 p. : ill <https://doi.org/10.1109/BEC56180.2022.9935610>

Embedded blur-free single-image acquisition pipeline for droplet microfluidic imaging flow cytometry (IFC)

Afrin, Fariha; Pärnamets, Kaiser; Le Moullec, Yannick; Udal, Andres; Koel, Ants; Pardy, Tamas; Rang, Toomas IEEE Access 2024 / p. 92431-92441 <https://doi.org/10.1109/ACCESS.2024.3421637> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Lightweight CNN-based Microfluidic Droplet Classification for Portable Imaging Flow Cytometry

Afrin, Fariha; Le Moullec, Yannick; Pardy, Tamas; Rang, Toomas Proceedings of the Estonian Academy of Sciences 2025 / p. 302-311 <https://doi.org/10.3176/proc.2025.2S.05>

Microfluidic droplet classification through tuned convolutional neural network on a resource constrained platform

Afrin, Fariha; Le Moullec, Yannick; Pardy, Tamas 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / 4 p <https://doi.org/10.1109/BEC61458.2024.10737958> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Microfluidic Droplet Detection, Classification and Quality Assessment for Embedded Flow Cytometry Systems = Tilkade tuvastamine mikrofluidikas, nende klassifitseerimine ja kvaliteedi hindamine sardsetes voolutsütomeetria süsteemides

Afrin, Fariha 2025 https://www.ester.ee/record=b5758191*est <https://digikogu.taltech.ee/et/Item/fa72df11-6487-4314-bd3d-5a7b1f5a263e> <https://doi.org/10.23658/taltech.57/2025>

Optical detection methods for high-throughput fluorescent droplet microflow cytometry

Pärnamets, Kaiser; Pardy, Tamas; Koel, Ants; Rang, Toomas; Scheler, Ott; Le Moullec, Yannick; Afrin, Fariha Micromachines 2021 / art. 345, 20 p. : ill <https://doi.org/10.3390/mi12030345> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)