ULB UNIVERSITÉ LIBRE DE BRUXELLES

Antoine Nonclercq

Curriculum Vitae

Short CV

Antoine Nonclercq holds a M.Sc. degree in electrical engineering from the Université Libre de Bruxelles, (ULB) a M.Sc. degree in Control and Electrical Engineering from the Universidad Politécnica de Madrid and a Ph.D. in Applied Sciences from the ULB. He previously worked as a researcher at the Implanted Devices Group - University College London, United Kingdom and as a development engineer in a medtech company. He is now associate professor at Polytechnic school of Brussels (ULB). His research interests include active implantable devices, electrostimulation, physiological modeling and biomedical signal monitoring and processing.

Education

Courses

Courses

- ELEC-H-313 "Instrumentation"
- ELEC-H-314 "Instrumentation et électronique analogique" (co-titular François Quitin)
- ELEC-H3002 "Instrumentation et automatique" (co-titular Michel Kinnaert)
- ELEC-H-424 "Active medical devices"
- ELEC-H-503 "Artificial organs"

Projects

- PROJ-H3000 "Projet intégré biomédical" (co-titular Michel Kinnaert)
- ELEC-H-309 "Projet intégré", (co-titulars Frédéric Robert, Dragomir Milojevic et François Quitin)
- PROJ-H417 "Projet coopération au développement / development cooperation project"

Management responsibilities

1. Coordinator of the teaching WG of the faculty strategic plan (2020-21)
2. Member of the biomedical track internship jury (since 2011)
3. Member of the jury of MFEs in the biomedical track (since 2011)
4. Co-head of the Development Cooperation Unit (CODEPO) (since 2006)

Scientific profile

Profile information: Google scholar ORCID ID: 0000-0003-0292-9588

Journal papers: **# 44** # Peer-reviewed conference papers: **# 28**

Citations (Scopus): **# 323**

h-index (Scopus): **# 12** h-index (Google): **# 12**

Five main publications

Sleep spindle detection through amplitude-frequency normal modelling
Nonclercq, A., Urbain, C., Verheulpen, D., ...Van Bogaert, P., Peigneux, P.
Journal of Neuroscience Methods, 2013, 214(2), pp. 192–203
Cited by: 42 (Scopus)

Cluster-based spike detection algorithm adapts to interpatient and intrapatient variation in spike morphology
Nonclercq, A., Foulon, M., Verheulpen, D., ...Mathys, P., Van Bogaert, P.
Journal of Neuroscience Methods, 2012, 210(2), pp. 259–265
Cited by: 38 (Scopus)

Spike detection algorithm automatically adapted to individual patients applied to spike and wave percentage quantification
Nonclercq, A., Foulon, M., Verheulpen, D., ...Mathys, P., Van Bogaert, P.
Neurophysiologie Clinique, 2009, 39(2), pp. 123–131
Cited by: 29 (Scopus)

Impaired sleep-related consolidation of declarative memories in idiopathic focal epilepsies of childhood
Galer, S., Urbain, C., De Tiège, X., ...Peigneux, P., Van Bogaert, P.
Epilepsy and Behavior, 2015, 43, pp. 16–23
Cited by: 24 (Scopus)

REM-enriched naps are associated with memory consolidation for sad stories and enhance mood-related reactivity
Gilson, M., Deliens, G., Leproult, R., ...Ercek, R., Peigneux, P.
Brain Sciences, 2016, 6(1)
Cited by: 20 (Scopus)

Valorization experience and industrial collaboration

Collaboration with

- Laboratory of Experimental Gastroenterology, Erasmus hospital (Prof. Jacques Devière)
- Institute Of NeuroScience, Université Catholique de Louvain (Prof. Riëm El Tahry)
- Departments of Neurology and of Functional Neuroimaging at the CUB Hôpital Erasme (Prof. Nicolas Gaspard et Prof. Xavier De Tiège)
- Research Unit in Cognitive Neurosciences, Université Libre de Bruxelles (Prof. Paul Deltenre Brugmann)
- Laboratory of Physics and Physiology, Erasmus hospital (Dr. Pierre-François Migeotte)
- Centre for Rehabilitation Engineering and Assistive Technology, Royal National Orthopaedic Hospital (Prof. Anne Vanhoestenberghe)
- Synergia Medical (Dr. Pascal Doguet)
- Department of Electrical Engineering, Universidad de Concepción (Prof. Pablo Aqueveque)
- School of Software Technology, Dalian University of Technology (Prof. Xiaoya FAN)
- Department of Clinical Sciences, Université de Liège (Dr. Stefan Deleuze)
- Department of Nutrition, Genetics and Ethology, Université de Gand (Prof. Myriam Hesta)

Patents

1. Bastin, O., Thulliez, M., Devière, J., Delchambre, A., Nonclercq, A., Hadefi, A., Blero, D., Ozkan, A., Merche, D., Reniers, F., & Vandencasteele, N. (2019, janvier). PAT2535975EP00: Device for cold plasma treatment, cold plasma endoscopic system, and method for generating and transporting a cold plasma.
2. Debelle, A., Deviere, J., Giannotta, F., Huberland, F., Lonys, L., Nonclercq, A. (2018, décembre). EP18213753.9 : Tissue Anchoring Assembly.