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Biography

Chris is the Head of School of Computing and holds the position of Professor of Biomedical Engineering. He is based within the School of Computing and Mathematics at Ulster University. He received a Bachelor of Engineering in Electronic Systems and DPhil in Biomedical Engineering both from Ulster University. Chris joined the University as a Research Fellow in 1999 and was appointed as Lecture in Computer Science in 2000. Following this he held positions of Senior Lecture and Reader within the Faculty of Computing and Engineering before his appointment as Professor of Biomedical Engineering in 2008. In 2016 he was awarded the Senior Distinguished Research Fellowship from Ulster University. His research within biomedical engineering addresses the themes of the development and evaluation of technologies to support ambient assisted living. Specifically, this has involved research in the topics of mobile based reminding solutions, activity recognition and behaviour modelling and more recently technology adoption modelling. He has published extensively in these areas with papers spanning theoretical, clinical and biomedical engineering domains. He has been a grant holder of Research Projects funded by National, European and International funding bodies. Chris is the Group Leader of the Smart Environments Research Group and also the co-PI of the Connected Health Innovation Centre at Ulster University.

Employment

Professor Of Biomedical Engineering

Full Professor
School of Computing
Vice-Chancellor's Office
1 Aug 2017 → present

Full Professor

Faculty Of Computing, Eng. & Built Env.
Vice-Chancellor's Office
1 Aug 2017 → present

Research outputs

Multi-occupancy Fall Detection using Non-Invasive Thermal Vision Sensor

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special issue on Hybrid Human-Artificial Intelligence

Chen, L. L., Ning, H., Nugent, CD. & Yu, Z., Aug 2020, 8 ed. 4 p. (Computer ; vol. 53, no. 8)

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Identifying the Most Appropriate Classifier for Underpinning Assistive Technology Adoption for People with Dementia: An Integration of Fuzzy AHP and VIKOR Methods

Ortiz-Barrios, M., Nugent, CD., Garcia-Constantino, M. & Jimenez-Delgado, G., 10 Jul 2020, (E-pub ahead of print) *HCII 2020: Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management. Human Communication, Organization and Work*. Vol. 12199. p. 406-419 14 p. (Lecture Notes in Computer Science book series (LNCS, volume 12199); vol. 12199).

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Radial Basis Function Neural Network with Localized Stochastic-Sensitive Autoencoder for Home-Based Activity Recognition

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Preliminary evaluation of a self-management health app by people with cognitive impairment

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Study Design of an Environmental Smart Microphone System to Detect Anxiety in Patients with Dementia

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Impact Analysis of Erroneous Data on IoT Reliability

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Mobile ECG Management and Clinical Decision Support

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MEDICATE: Internet based prescription and medication management

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The design of a care model and associated peripherals to assist with non-compliance of medication

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An internet approach to delivery and management of medication in the home

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Activities

Dunraven Ltd - Fusion Project

Jonathan Wallace (Consultant), Christopher Nugent (Consultant) & Maurice Mulvenna (Consultant)
2006 → 2009

Prizes

Digital Innovation of the year, Value-Added Future Services for 5G-Enabled Edge Compute (highly commended)

Rafferty, Joseph (Recipient), Nugent, Christopher (Recipient), Scotney, Bryan (Recipient), Moore, Adrian (Recipient), Abu-Tair, Mamun (Recipient), Wang, Bin (Recipient), Rabbani, K. (Recipient) & Zoualfaghari, M. (Recipient), Aug 2020

Outstanding Research Partnership of the Year 2019

Cleland, Ian (Recipient) & Nugent, Christopher (Recipient), 2019

TM Forum: Highly Commended - Outstanding Catalyst – innovation

Abu-Tair, Mamun (Recipient), Wang, Bin (Recipient), Rabbani, K. (Recipient), Zoualfaghari, M. (Recipient), Rafferty, Joseph (Recipient), Nugent, Christopher (Recipient), Scotney, Bryan (Recipient) & Perry, P. (Recipient), 12 Nov 2020

TM Forum: Highly Commended - Outstanding use of TM Forum assets

Abu-Tair, Mamun (Recipient), Wang, Bin (Recipient), Rabbani, K. (Recipient), Rafferty, Joseph (Recipient), Zoualfaghari, M. (Recipient), Nugent, Christopher (Recipient), Scotney, Bryan (Recipient) & Perry, P. (Recipient), 12 Nov 2020

TM Forum: Winner - Outstanding Catalyst – Business Impact

Abu-Tair, Mamun (Recipient), Wang, Bin (Recipient), Rabbani, K. (Recipient), Rafferty, Joseph (Recipient), Zoualfaghari, M. (Recipient), Nugent, Christopher (Recipient), Scotney, Bryan (Recipient) & Perry, P. (Recipient), 13 Nov 2020

UK IT Industry Award, Emerging Technology of the Year: Value-Added Services for Industry 4.0 (VASI4) (highly commended)

Abu-Tair, Mamun (Recipient), Wang, Bin (Recipient), Rabbani, K. (Recipient), Zoualfaghari, M. (Recipient), Rafferty, Joseph (Recipient), Nugent, Christopher (Recipient), Scotney, Bryan (Recipient), Perry, P. (Recipient) & Reeves, A. (Recipient), 11 Nov 2020

Ulster University, best computer science paper published within academic year of 2016

Rafferty, Joseph (Recipient), Nugent, Christopher (Recipient), Liu, Jun (Recipient) & Chen, Luke (Recipient), Jan 2017

Awards

VIPIRS - Virus Identification via Portable InfraRed Spectroscopy

Maguire, P., Nugent, C., Wang, H. & McLaughlin, P. J.

11/08/20 → 10/02/22

Projects

ACROSSING - Advanced Technologies and Platform for Smarter Assistive Living

Cleland, I., Breslin, G., Mc Cullagh, P. & Nugent, C.

ASGARD - Analysis System for Gathered Raw Data

Davis, P., Gormley-Heenan, C., Wang, H., Fee, R., Scotney, B., Nugent, C., Mc Cord, J., Mc Cord, M., Mc Guinness, E., Nibouche, O. & Haran, M.

BT-Ireland Innovation Centre (BTIIC). An International Centre of Excellence for Industrial Research and Engineering

Lin, Z., Moore, A., Parr, G., Chen, L., Morrow, P., Nugent, C., Charles, D., Zhang, S., Mc Clean, S., Scotney, B., Rafferty, J. & Martinez Carracedo, J.

CASE/CAST AWARD: Development of clinically administered in home assessment platform for cognitively impaired older people

McLaughlin, P. J., Donnelly, M. & Nugent, C.

CHIC Phase 2 CORE - Connected Health Innovation Centre

Soin, N., Mc Cullagh, P., McLaughlin, P. J., Cleland, I., Synnott, J., Nugent, C. & Finlay, D.

CHIC Phase 2 Research - Connected Health Innovation Centre

Cleland, I., McLaughlin, P. J., Synnott, J., Nugent, C., Finlay, D., Soin, N. & Mc Cullagh, P.

CHRIS NUGENT: Guest Professorship at LTU

Nugent, C.

CLAHRC - COPD self-management Platform
Nugent, C., Mc Cullagh, P., Zheng, H. (. & Black, N.

COGWORKS: The creative health & wellbeing hub
Nugent, C. & Keenan, M.

Community-based ICT for Maternal Healthcare in Africa: mHealth4Africa ICT-39-2015
Nibouche, O., Wang, H., Sinclair, M., Zheng, H. (. & Nugent, C.

Competence Centre Research Expert - Connected Health
Nugent, C. & McLaughlin, P. J.

Computer in Cardiology 2010
Finlay, D. & Nugent, C.

Computers in Cardiology
Finlay, D. & Nugent, C.

Computers in Cardiology 2010
Finlay, D. & Nugent, C.

Computers in Cardiology 2010
Finlay, D. & Nugent, C.

Conference Support: UCAM/IWAAL 2014
Nugent, C. & Cleland, I.

Connected Health Innovation Centre (CHIC)
McLaughlin, P. J. & Nugent, C.

Connected Health Living Lab
Wallace, J., Ryan, A., Mc Chesney, I., Moore, G., Nicholl, P., Cleland, I., Zhang, S., Mc Cance, T., Nugent, C., Mc Ilfatrick, S. & Mc Clean, S.

Continence Management for Dementia Patients through Wetness Alert Diaper
Mulvenna, M., Sterritt, R., Finlay, D., Nugent, C. & Martin, S.

Co-Producing a person-centred cancer nursing implementation project
Nugent, C., Brown, D. & Mc Cance, T.

Co-producing a person-centred cancer nursing implementation project (continuation)
Brown, D., Mc Cance, T. & Nugent, C.

DASH - Data Analytics for Smart Homes
Nugent, C.

DASH - Data Analytics for Smart Homes
Nugent, C.

DEL CAST AWARD - Situation-aware Content Provisioning in Mobile Environments
Chen, L. & Nugent, C.

Deployment of sensing technology in connected health care

Finlay, D., Nugent, C., Mc Clean, S., Scotney, B., Chen, L., McLaughlin, P. J. & Mc Cullagh, P.

DESIGN FOR AGEING WELL: Improving the quality of life for the ageing population using a technology enabled garment system

Finlay, D., Nugent, C., Mc Clean, S., Scotney, B., Wallace, E. & Mc Cullagh, P.

Design for Ageing Well: Studentship

Wallace, E., Mc Cullagh, P., Finlay, D., Scotney, B., Mc Clean, S. & Nugent, C.

Determining the value of user needs in the product design of cognitive prosthetics

Dixon, D., Nugent, C., Meenan, B., Mc Culloch, D., Scotney, B., Mc Clean, S. & Donnelly, M.

Eastern Corridor Medical Engineering Centre (ECME) PhD Costs

McLaughlin, P. J., Meenan, B., Davis, J., Boyd, A., Finlay, D. & Nugent, C.

Educational inclusion for young people with autistic spectrum disorders

Nugent, C. & Donnelly, M.

Home4Dem: Home based ICT for dementia patients

Charles, D., Nugent, C., Zhang, S. & Rafferty, J.

Home4Dem: Home-based ICT for dementia patients - additional grant

Nugent, C. & Rafferty, J.

iMPAKT App 2 Development

Brown, D., Cleland, I., Mc Cance, T., Nugent, C., Ennis, A. & Lynch, B.

iMPAKT App 2 Development

Ennis, A., Lynch, B., Cleland, I., Mc Cance, T., Nugent, C. & Brown, D.

Improving Clinical Practice with the Introduction of Modern Teaching Tools for an Old Science

Moore, G., Finlay, D. & Nugent, C.

Innovation Leaders Proposal

Nugent, C.

KTP Programme between University of Ulster and James Leckey Design Limited

Cleland, I. & Nugent, C.

Low-cost monitoring to assist people with dementia and their caregivers using smart microphones

Rafferty, J., Garcia-Constantino, M., Ennis, A., Synnott, J., Nugent, C. & Cleland, I.

MICHELANGELO: Patient-centric Model for Remote Management, Treatment and Rehabilitation of Autistic Children

Galway, L., Donnelly, M., Mc Cullagh, P., Nugent, C., Lightbody, G. & Chen, L.

Myhealth @ Age

Nugent, C., Galbraith, B., Martin, S., Moore, G., Mulvenna, M. & Wallace, J.

New Eastern Corridor Medical Engineering Centre (ECME)

Davis, J., Nugent, C., Finlay, D., Boyd, A., Meenan, B. & McLaughlin, P. J.

Opportunity Led Scheme

Nugent, C. & Cleland, I.

Personal IADL Assistant

Nugent, C. & Chen, L.

PLACE-EE: Platforms for Ageing Community Engagement - Exchange and Enterprise

Robinson, G., Nugent, C. & Leavey, G.

POP-WELL

Breslin, G., Nugent, C., Galbraith, B. & Brennan, D.

Privacy Computing and Protection Research for IoT-enabled Smart Healthcare Systems

Nugent, C., Chen, L. & Zhang, S.

Recording Care Project in Northern Ireland (PACE)

Brown, D., Nugent, C., Mc Cance, T. & Curran, C.

REMINd: The use of computational techniques to improve compliance to reminders within smart environments

Cleland, I., Zhang, S., Galway, L., Morrow, P., Mc Cullagh, P., Nugent, C., Charles, D. & Donnelly, M.

RemoAge

Nugent, C. & Cleland, I.

Self-management of lifestyle risk factors using a mobile-technology solution

Zhang, S., Cleland, I. & Nugent, C.

Self Management Platform for Connected Health

Mc Cullagh, P., Black, N., Donnelly, M., Zheng, H. (., Nugent, C., Finlay, D. & Mc Donough, S.

Situated Adaptive Guidance for the Mobile Elderly: Mobile Sage

Chen, L., Donnelly, M. & Nugent, C.

Socially Interactive CDSS (Clinical Decision Support System)

Chen, L., McLaughlin, P. J., Parr, G., Nugent, C., Donnelly, M., Mc Clean, S. & Scotney, B.

Socially Interactive CDSS (Clinical Decision Support System) 2012

Nugent, C., Donnelly, M., Mc Clean, S., Scotney, B., Chen, L., McLaughlin, P. J. & Parr, G.

Socially Interactive CDSS (Clinical Decision Support System) 2013

Nugent, C.

Socially Interactive CDSS (Clinical Decision Support System) 2014

Nugent, C.

STAR: Skills Training and Re-Skilling for Carers of People with Dementia

Wang, H., Liu, J., Nugent, C. & Donnelly, M.

Strategic geo-mapping for early response of Dengue epidemic outbreaks

Byrne, J., Finlay, D., Nugent, C., Catherwood, P. A., Davis, J., McLaughlin, P. J., Brennan, M. & Dooley, J.

TAUT: Technology Adoption and prediction Tools for Everyday Technology

Donnelly, M., Scotney, B., Nugent, C. & Mc Clean, S.

The Connected Health Innovation Centre (CHIC)

McLaughlin, P. J. & Nugent, C.

The Cross-Border Centre for Intelligent Point of Care Sensors

Scotney, B., Mc Cullagh, P., Finlay, D., Papakonstantinou, P., Nugent, C., Mc Clean, S., Byrne, J., McLaughlin, P. J., Escalona, O. & Maguire, P.

The Gray Matters study in Northern Ireland: Reducing the risk of developing Alzheimer's disease

Mc Clean, S., Nugent, C., Cleland, I. & Zhang, S.

Transferring knowledge in musculoskeletal medicine - there's an App for that

Mc Donough, S., Bleakley, C., Nugent, C. & Davies, R.

UKRI GCRF Birth across the Borders: exploring contextual education as a catalyst for improved maternal health

Kernohan, G., Slater, P., Mc Coy, J., Smith, A., Sinclair, M., Dornan, L. & Nugent, C.

VIPIRS - Virus Identification via Portable InfraRed Spectroscopy

Nugent, C., Wang, H., McLaughlin, P. J. & Maguire, P.