Hannah Mary Thomas T
Staff Scientist, India Alliance Early Career Fellow, Biomedical Informatics Unit, Christian Medical College, Bagayam, Vellore 632002, Tamil Nadu, India Email: hannahrheathomas@gmail.com | Office: +91 416 22852046| Cell: +91 9626262292 | Lab URL: https://qirail.cmcvellore.edu.in/ | ORCID: 0000-0002-1454-512X | Date of Birth: 26 August1982 | Nationality: Indian | Languages: English, Tamil, Hindi

Research Interests: Quantitative Imaging, Radiomics, Artificial Intelligence, Radiation Oncology

Technical Expertise: Image Processing, Machine Learning, Optimization, Workflow process creation, Grant Writing

Work Experience

Feb '25 – Present	Staff Scientist and DBT- Wellcome India Alliance Early Career Fellow, Christian Medical College, Vellore, Biomedical Informatics Unit
Jan '20-Jan '25	Wellcome-DBT India Alliance Early Career Fellow, Christian Medical College, Vellore, Department of Radiation Oncology, Unit 2
Jul '19- Dec '19	**Scientist,** University of Washington, School of Medicine, Department of Radiation Oncology
July '17-Jun '19	**Post-Doctoral Fellow,** University of Washington, School of Medicine, Department of Radiation Oncology
Aug 16 – Apr '17	**Senior Research Fellow,** Christian Medical College, Vellore Department of Developmental Paediatrics
Sep '14- Jun '15	**Fulbright- Nehru Doctoral Fellow**, University of Washington, School of Medicine, Department of Radiology, Imaging Research lab
Apr '12-Jul '14	**CSIR Senior Research Fellow** VIT University, School of Advanced Sciences, Department of Physics
Apr 09-Aug'11	**Senior Research Fellow,** Christian Medical College, Vellore, Department of Bioengineering
Sep '06- Mar '09	**Junior Research Fellow,** Christian Medical College, Vellore Department of Radiotherapy,

Education/training

VIT University, Vellore	PhD	08/2016	Medical Imaging
Madras Christian College, University of Madras	MSc Physics	04/2006	Physics
Women's Christian College, University of Madras	BSc Physics	05/2003	Physics

Other Experience and Professional Memberships

2009 Member, Association of Medical Physicists of India
2010 Member, Association of Radiation Oncologists of India

Awards/Honors

2024 Responsible AI Fellowship, Maastricht University
2023 Best Poster in Innovations in Radiation Oncology, 3rd Indian Cancer Congress, Mumbai
2023 Clinical Data Science Fellowship, Maastricht University
2022 IAS Fellowship for external academics 2022-23, University of Surrey
2016 Travel grant, INSA-CSIR-BRNS/DAE-CICS Joint travel Fellowship
2016 Travel grant, Science and Engineering Research Board, India
2014 Fulbright- Nehru Doctoral and Professional Research Fellowship, Institute of international Education and United States-India Educational Foundation
2012 Senior Research Fellowship, Council for Scientific and Industrial Research, India
2008 Best Medical Physics Paper, Association of Radiation Oncologists of India Annual conference
2007 Student trainee grant, IEEE Nuclear and Plasma Sciences Society

Instituitional level roles

1. **Staff scientist and Core member of the Biomedical Informatics Unit** under the Principal's office. This core group leverages the efforts of few like-minded physicians and basic scientists to support and facilitate Biomedical Informatics Research at CMC Vellore. My roles include but is not limited to engaging with clinicians and technical groups to facilitate awareness on Biomedical Informatics and Artificial Intelligence use for specific use cases, conduct awareness level meetings and symposiums, offer consultations on grants/concepts involving Artificial Intelligence in healthcare, help clinicians pitch their ideas or write grants for AI related funding calls.

2. **Member Lancet Citizen's commission for Reimagining India's Health Evidence synthesis.**
    a. Volunteered under the leadership of Dr Gagandeep Kang to facilitate and coordinate the various groups to meet for the evidence synthesis.
    b. Volunteered on a year-long exercise to collect and synthesize evidence on the landscape in teleradiology in India. Anuradha Chandramohan, Viswajit Krothapalli, Ann Augustin, Madhavi Kandagaddala, Hannah Mary Thomas, Thambu David Sudarsanam, Ammar Jagirdar, Shalini Govil, Arjun Kalyanpur,Teleradiology and technology innovations in radiology: status in India and its role in increasing access to primary health care, The Lancet Regional Health - Southeast Asia, 2023, 100195, https://doi.org/10.1016/j.lansea.2023.100195.

3. **Institutional Level Memorandum of Understanding with Centers of Excellence**

I have facilitated and been instrumental in memorandum of understanding to be signed with the following institutions.

- Maastricht University, The Netherlands- External PhD Program with CMC ready to initiate, Promise of BMIU capacity building with in-person training on site at CMC, cost borne by clinical Data Science Team, MU
- National Institute of Technology Karnataka (NIT-K) Suratkal
- Centre for Development of Advanced Computing – Pune
- Centre for Responsible AI – IIT M

4. **Department of Radiation Oncology - Research initiatives**

Institution's and India's first and exclusive Artificial Intelligence Lab in a teaching hospital

Co-founded and lead the Research at the Quantitative Imaging Research and Artificial Intelligence Lab

Facilitated the **registration of 3 Radiation Oncology as PhD guides** and in getting the **department of Radiation Oncology registered** for accepting PhD students under **TN MGR Medical University.**

Manuscript development/Technical editing

I have worked with various clinicians in the department of Radiation Oncology to help them get their research work published. My contribution includes but has not been limited to journal identification, scientific writing, preparation of manuscript as per journal specific criteria, language, and technical editing, handling the manuscript submissions and peer review-based revisions.

- Dr Anandhita et al Journal of Gastrointestinal cancer doi: https://doi.org/10.1007/s12029-020-00464-2
- Dr Manu et al Journal of Radiotherapy in Practice doi:10.1017/S146039692100011X
- Dr Jeyanth et al Journal of Radiotherapy in Practice doi : https://doi.org/10.1017/S1460396920001259
- Dr Sobin et al Current Medical Issues doi: 10.4103/cmi.cmi_130_20
- Dr Manu Mathew et al Journal of Radiation and Cancer Research doi: 10.4103/jrcr.jrcr_29_24

5. **Symposiums and Workshops**

Role: Co-Organizer

- **Annual Winter Symposium and 2nd National Symposium on Health Data and Artificial Intelligence March 13th-15th 2025**
  Led the efforts to bring the different stakeholders for discussions, identify the speakers (both national and international), facilitated sponsorships, managed participant registrations, abstract submissions and the meeting was well attended (> 600 participants).
- **Workshop on Integrating Natural Language Processing and AI for Enhanced Healthcare Communication at the 21st International Conference on Natural Language Processing 19th December 2024**
  Led the efforts to design the workshop, identify the speakers and hands on training sessions, handled media publicity and ensured the meeting was well attended (> 60 participants).

- **Workshop on Health Data Standards and Security in partnership with Digital Security Council of India (DSCI) and CDAC Pune. October 3rd and 4th 2023**
  Led the efforts to bring the different stakeholders for discussions, participant registrations and ensured that meeting was well attended (>100 participants)

- **National Symposium on Health Data and Artificial Intelligence March 17th and 18th 2023**

Led the efforts to bring the different stakeholders for discussions, identify the speakers (both national and international), facilitated sponsorships, participant registrations and the meeting was well attended (> 450 participants).

- **Symposium on Biomedical Informatics Research at CMC- 26th February 2022**
  Led the efforts to bring the different clinical and research groups to discuss their areas of expertise, identify the speakers (both national and international), facilitated sponsorships, participant registrations and the meeting was well attended (> 450 participants).

Awareness Meetings

Role: Co-Organizer

- **Exploring Pathways to Equitable Digital Health**
  Dr. Vijay Chandru, Mr. Raghu Dharmaraju, ARTPARK 18th April 2022
- **Democratizing Digital health & AI: The power of collaboration**
  Ambassador Amandeep Gill, CEO, I-DAIR Geneva, April 22, 2022
- **Institutional Research Data Warehouse**
  Prof. Dr. ir. A.L.A.J. (André) Dekker and Dr Leonard Wee, MAASTRO and Maastricht University Netherlands, 24th May 2022
- **AI & ML in Health & Disease**
  Mr. Jigar, Director ML, ARTPARK, IISc Bangalore

Continuing education

1. Artificial Intelligence – A primer for Trauma Care Team Trauma Surgery, November 30th 2023
2. Artificial Intelligence – A primer for clinicians Continuing Medical Education Head and Neck Oncology November 19th 2023
3. Radiomics- a move from qualitative imaging to quantitative imaging -Continuing Medical Education Nuclear Medicine CMC Vellore April 2021
4. Fellowships and Funding for PhD Scholars and Post-Doctoral Fellows- Physics Alumnus Lecture Series- School of Advanced Sciences VIT University February 2021
5. Radiomics Research-Putting it to Practice - Oncorace Foundation Medical Physics for Life Aug 2020
6. Early Career Fellowship scheme and Grants writing – India Alliance Webinar Jul 23 2020

Research Support and/or Scholastic Performance

Current Research

Wellcome- DBT India Alliance Early Career Fellowship
01/01/2020– 31/12/2026
Thomas, Hannah Mary T (PI)
Funding: INR; 1,35, 21,386

Radiomics based tumor phenotypes to predict individual risk and treatment response in head and neck cancer

Completed Research Support

R01CA204301, National Cancer Institute
Bowen, Stephen R (PI)
06/01/16-06/27/19
Role: Post-Doctoral Scholar

Personalized radiation therapy through functional lung avoidance and response-adaptive dose escalation: utilizing multimodal molecular imaging to improve the therapeutic ratio.

Senior Research Fellowship, Council of Scientific and Industrial Research
04/2012-07/2014
Thomas, Hannah Mary T (PI)
Funding: INR 5, 50,667
Adaptive PET-based segmentation method for pituitary tumours

Hybrid PET-based segmentation method for heterogeneous lung tumours

Fulbright-Nehru Doctoral and Professional Research Fellowship, USIEF and IIE

09/2014-06/2015
Thomas, Hannah Mary T (PI)
Funding: USD 19,877

Impact of tumour motion compensation and delineation methods on FDG PET-based dose painting plan quality for NSCLC radiation therapy

Indian Council for Medical Research

01/06/2016 – 31/ 05/2018
Koshy, Beena (PI)
Role: Senior Research Fellow
Autism Spectrum Disorder: Clinico-Radiological and Morphometric Analysis from a Tertiary Care Centre

List of publications

1. BK Sasidharan, SK Sidhique, JV Wilson, M Mathew, AJ Tirkey, A Singh, JJ Sundararaj, **HMT Thomas** , et al., Pragmatic patient choice-driven radical treatment approach (PRAGRAD) for very advanced Unresectable Oral Cavity Cancers, International Journal of Radiation Oncology*Biology*Physics, 2025, doi.org/10.1016/j.ijrobp.2025.05.088,
2. Gouthamchand, V Fonseca, Louise AF; Hoebers, Frank JP; Fijten, Rianne; Dekker, Andre; Wee, Leonard; Thomas T, **Hannah Mary Thomas T** Performance of Handcrafted Radiomics versus Deep Learning for Prognosticating Head and Neck Squamous Cell Carcinoma–A Systematic Review with Critical Appraisal of Quantitative Imaging Studies medRxiv (2024) 2024.10. 22.24315007
3. Sasidharan BK, James RI, Sathyendra S, Harsh R, Jeba Sundararaj J, Ravindran V, **Thomas HMT,** Ashok N, Thirunavukkarasu MM, Punitha JV, George TK, Isaac BTJ, Zechariah AJ, David SNJ, Yesupatham DP, Irodi A, Aruldas V, Keshava SN, Zachariah A, Kang G, Mammen JJ. UDHAVI Community Support During India's Second COVID-19 Wave: A Descriptive Study on a Tertiary Care Center's Pandemic Response Helpline. Glob Health Sci Pract. 2023 Oct 30;11(5):e2200315. doi: 10.9745/GHSP-D-22-00315. PMID: 37903577; PMCID: PMC10615235.
4. Sathya A, Goyal-Honavar A, Chacko AG, Jasper A, Chacko G, Devakumar D, Seelam JA, Sasidharan BK, Pavamani SP, **Thomas HMT**. Is radiomics a useful addition to magnetic resonance imaging in the preoperative classification of PitNETs? Acta Neurochir (Wien). 2024 Feb 20;166(1):91. doi: 10.1007/s00701-024-05977-4. PMID: 38376544.
5. Anuradha Chandramohan, Viswajit Krothapalli, Ann Augustin, Madhavi Kandagaddala, **Hannah Mary Thomas**, Thambu David Sudarsanam, Ammar Jagirdar, Shalini Govil, Arjun Kalyanpur Teleradiology and technology innovations in radiology: status in India and its role in increasing access to primary health care The Lancet Regional Health-Southeast Asia, 2024 doi.org/10.1016/j.lansea.2023.100195.
6. Ramireddy JK, Sathya A, Sasidharan BK, Varghese AJ, Sathyamurthy A, John NO, Chandramohan A, Singh A, Joel A, Mittal R, Masih D, Varghese K, Rebekah G, Ram TS**, Thomas HMT**. Can Pretreatment MRI and Planning CT Radiomics Improve Prediction of Complete Pathological Response in Locally Advanced Rectal Cancer Following Neoadjuvant Treatment? J Gastrointest Cancer. 2024 Sep;55(3):1199-1211. doi: 10.1007/s12029-024-01073-z. Epub 2024 Jun 10. PMID: 38856797.
7. Jeba Karunya Reddy, Sathya A, Balu Krishna S …**Hannah Mary Thomas T** . Can pre-treatment MRI and CT radiomics improve prediction of complete pathological response in locally advanced rectal cancer following neoadjuvant treatment?, 19 December 2023, PREPRINT (Version 1) available at Research Square [https://doi.org/10.21203/rs.3.rs-3756695/v1]
8. **HMT Thomas,** HYC Wang, AJ Varghese, EM Donovan, CP South Reproducibility in Radiomics: A Comparison of Feature Extraction Methods and Two Independent Datasets, Applied Sciences 2023 13 (12), 7291,
9. AJ Varghese, V Gouthamchand, BK Sasidharan, L Wee, SK Sidhique…**HMT Thomas** Multi-centre radiomics for prediction of recurrence following radical radiotherapy for head and neck cancers: Consequences of feature selection, machine learning classifiers Physics and Imaging in Radiation Oncology 26, 100450
10. N Jose, AJ Varghese, **HM Thomas,** A Irodi, JC Paul, M Mathew, R Isiah, ...Can CBCT-Based Delta Radiomics Predict Normal Lung Toxicity during Thoracic Radiation? International Journal of Radiation Oncology, Biology, Physics 2022 114 (3), e118-e11
11. **HMT Thomas**, DS Hippe, P Forouzannezhad, BK Sasidharan, ... Radiation and immune checkpoint inhibitor-mediated pneumonitis risk stratification in patients with locally advanced non-small cell lung cancer: role of functional lung radiomics? Discover Oncology 2022 13 (1), 85
12. John NO, Irodi A, Thomas **HMT**, Abraham V, Sasidharan BK, John S, Pavamani SP. Utility of Mid-treatment DWI in Selecting Pathological Responders to Neoadjuvant Chemoradiotherapy in Locally Advanced Esophageal Cancer. J Gastrointest Cancer. 2022 Epub ahead of print. PMID: 35347663.
13. Zeng J, Sasidharan B, Rengan R, **Thomas HMT**, Bowen SR. Upstaging in Repeat PET/CT prior to Chemoradiation in Locally Advanced NSCLC: Implications for Clinical Care. Int J Radiat Oncol 2019;104:229–30.

14. Zeng J, **Thomas HMT,** Rengan R, Hippe DS, Vesselle HJ, Kinahan PE, et al. Predicting Survival in Patients Undergoing Chemoradiation for Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC) Using Mid-Treatment Imaging Response and Radiation Parameters. Int J Radiat Oncol 2020;108:e131.

15. Zeng J, Hippe DS, **Thomas HMT,** Kinahan PE, Miyaoka RS, Vesselle HJ, et al. Prognostic Value and Peripheral Immunologic Correlates of Early FDG PET Response Imaging in a Phase II Trial of Risk-Adaptive Chemoradiation for Unresectable NSCLC. Int J Radiat Oncol 2021;111:S90–1.

16. Bowen SR, Hippe DS, **Thomas HMT,** Sasidharan B, Lampe PD, Baik CS, et al. Prognostic value of early FDG PET response imaging and peripheral immunologic biomarkers: sub-study of a phase II trial of risk-adaptive chemoradiation for unresectable non-small cell lung cancer. Adv Radiat Oncol 2021:100857.

17. Devakumar D, Goutham Sunny, Balukrishna S, SR Bowen et al. Framework for machine learning of CT and PET radiomics to predict local failure after radiotherapy in locally advanced head and neck, Journal of Medical Physics 46 (3), 181, 2021

18. KP Horn, **HMT Thomas**, HJ Vesselle, PE Kinahan, RS Miyaoka et al Reliability of Quantitative 18F-FDG PET/CT Imaging Biomarkers for Classifying Early Response to Chemoradiotherapy in Patients With Locally Advanced Non–Small Cell Lung Cancer Clinical Nuclear Medicine 46 (11), 861-871, 2021

19. Stephen R Bowen, Daniel S Hippe, **Hannah M Thomas**, Balukrishna Sasidharan, Paul Lampe, Christina S Baik, et al Prognostic value and peripheral immunologic correlates of early FDG PET response imaging in a phase II trial of risk-adaptive chemoradiation for unresectable non-small cell lung cancer medRxiv 2021

20. Zeng J, Thomas HMT, Rengan R, Hippe DS, Vesselle HJ, Kinahan PE, et al. Predicting Survival in Patients Undergoing Chemoradiation for Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC) Using Mid-Treatment Imaging Response and Radiation Parameters. Int J Radiat Oncol Volume 108, Issue 3, Supplement, 2020 Nov https://doi.org/10.1016/j.ijrobp.2020.07.1278

21. Zou Z, Bowen SR, **Thomas HMT**, Sasidharan B, Rengan R, Zeng J. Scanning Beam Proton Therapy Versus Photon IMRT for Stage III Lung Cancer: Comparison of Dosimetry, Toxicity and Outcomes Adv Radiat Oncol. 2020 May-Jun; 5(3): 434–443. DOI: 10.1016/j.adro.2020.03.001

22. **Thomas, H.M.T**., Zeng, J., Lee, H.J., Sasidharan, B.K., Kinahan, P.E., Miyaoka, R.S., Vesselle, H.J., Rengan, R., Bowen, S.R., 2019. Comparison of regional lung perfusion response on longitudinal MAA SPECT/CT in lung cancer patients treated with and without functional tissue-avoidance radiation therapy. Br. J. Radiol. 20190174. https://doi.org/10.1259/bjr.20190174

23. Beena Koshy, **T. Hannah Mary Thomas,** D. Chitra, Anna Varghese, Rachael Beulah and Sunithi Mani; Parcellation Analysis of Language Areas of the Brain and Its Clinical Association in Children with Autism Spectrum Disorder. In book ICTMI (2017) DOI: 10.1007/978-981-13-1477-3_8

24. Koshy B, **Thomas T HM**, Samuel P, Sarkar R, Kendall S, Kang G. (2017) Seguin Form Board as an intelligence tool for young children in an Indian urban slum. Family Medicine and Community Health. 5(4):275–81.

25. **Thomas, H. M.**, Kinahan, P. E., Samuel, J. J. E. & Bowen, S. R. Impact of tumor motion compensation and delineation methods on FDG PET-based dose painting plan quality for NSCLC radiation therapy. J. Med. Imaging Radiat. Oncol. 62, 81–90 (2018).

26. **Thomas HMT,** Devakumar D, Sasidharan B, Bowen SR, Heck DK, James Jebaseelan Samuel E. Hybrid positron emission tomography segmentation of heterogeneous lung tumors using 3D Slicer: improved GrowCut algorithm with threshold initialization. J Med Imag. 2017;4(1):011009–011009.

27. **Thomas HMT**, Devadhas D, Heck DK, Chacko AG, Rebekah G, Oommen R, et al. Adaptive threshold segmentation of pituitary adenomas from FDG PET images for radiosurgery. J Appl Clin Med Phys. 2014 Nov 8;15(6):279–94.

28. **Thomas HMT**, Balukrishna S, Devakumar D, Muthuswamy P, Samuel E. Can positron emission tomography be more than a diagnostic tool? A survey on clinical practice among radiation oncologists in India. Indian Journal of Cancer. 2014;51(2):145.

29. Ravindran PB, **Thomas HMT**. Characterization of a cone beam optical scanner. Journal of Physics Conference Series. 2013;444(1):2064.

30. **Thomas HMT**, Devakumar D, Balukrishna S, Godson HF, Ravindran BP. Validation of image registration and fusion of MV CBCT and planning CT for radiotherapy treatment planning. Australasian Physical & Engineering Sciences in Medicine. 2011 Aug 10;34(4):441–7.

31. **Thomas HMT**, Devakumar D, Purnima S, Ravindran BP. The adaptation of megavoltage cone beam CT for use in standard radiotherapy treatment planning. Phys Med Biol. 2009 Apr 7;54(7):2067–77.

32. **Thomas HMT**, Devadhas D, Purnima S, Balukrishna S, Ravindran BP. Evaluation of radiotherapy treatment planning with mega-voltage cone beam CT. In: IEEE Nuclear Science Symposium Conference Record. IEEE; 2009. p. 3801–3.

33. **Thomas HMT**, Devakumar D, Ravindran PB. Three-dimensional image reconstruction for CCD camera based optical computed tomography scanner. In: IEEE Nuclear Science Symposium Conference Record. IEEE; 2007. p. 2965–7.

Collaborations via Quantitative Imaging Research and AI Lab, Radiation Oncology Unit 2

- **University of Surrey, UK-** Collaborator: Dr Phil Evans. We work on reproducibility of Radiomic features for predictive modelling. Centre for Vision Speech and Signal Processing and the Centre for People Centred AI
- **MAASTRO, Netherlands**– Collaborators: Dr Andre Dekkar, Dr Leonard Wee, Dr Frank Hoebers - I initiated the collaboration and now we are working on implementing distributed Learning Approach in head and neck cancer in Indian patients. We have jointly applied for setting up federated learning approaches for head and neck cancer.
- **Tata Medical Centre Kolkata**, **India** - Collaborators: Dr Santam Chakraborathy, Dr Indranil Mallik. We work on the Image Biobank initiative that aims to have a repository for oncology images in India.
- **University of Washington** Collaborators: Dr Paul Kinahan Fulbright Fellowship mentor 2014-15, Dr Stephen Bowen Post-doctoral fellowship mentor 2017-19. I am engaged with both till date in a collaborative effort on developing Radiomics signatures in predicting pneumonitis in NSCLC. Dr Bowen also is a mentor for my India Alliance fellowship
- **VIT University, Vellore India** – Collaborator: Dr Jeeva JB- We are working on developing a CNN based outcome prediction in HNSCC.
- **Women's Christian College Chennai, India**- Collaborator: Dr Christina Nancy- I work on leading lectures on Introduction to radiation physics and medical imaging for students pursuing their bachelor's degree in physics.

Invited Talks

1. How to participate as an Indian collaborator in federated learning research? - perspectives on study design, review and approval processes; Indo-Dutch Workshop: Federated Learning network projects in India May 2023
2. Creating inclusive, and accessible artificial intelligence for health : perspective from quantitative imaging study for head and neck cancer. British Nuclear Medicine Society Conference May 2023
3. Exploring Artificial Intelligence in Healthcare: Insights from a Quantitative Imaging Study on Head and Neck Cancer, The International Centre for Theoretical Sciences (ICTS) of the Tata Institute of Fundamental Research Workshop on Machine Learning for Health and Disease 24 July-4 Aug 2023
4. AI and future of Radiation Oncology: Perspectives on ongoing research and vision ahead Panelist Indian Cancer Congress 3-4 November 2023
5. Capacity-building and knowledge sharing: the role of academic support and exchange; Indo-Dutch innovation mission Data for Better Health Outcomes in Oncology 22 November 2023
6. Exploring Artificial Intelligence in Healthcare: Insights from a Quantitative Imaging Study on Head and Neck Cancer**,** ICTS Workshop on Machine Learning for Health and Disease 2023 ICTS
7. How to participate as an Indian collaborator in a federated learning research? - perspectives on study design, review and approval processes; Indo-Dutch Workshop : Federated Learning network projects in India 2023
8. Radiomics and Artificial Intelligence in Health Care July 13th 2022 Kasturba Medical College Manipal (online)
9. AI based Quantitative Imaging Biomarkers (Radiomics) for head and neck cancer prognostication – experiences from our prospective imaging trial, multi-institutional studies and developing inclusive, and accessible AI ; Nov 25th 2022 Centre for Vision, Speech and Signal Processing and Institute of People Centred AI, University of Surrey, UK
10. AI based Quantitative Imaging Biomarkers (Radiomics) for head and neck cancer prognostication – experiences from our prospective imaging trial, multi-institutional studies and developing inclusive, and accessible AI Dec 12th 2022 National Physical Laboratories, Teddington UK
11. Radiomics for head and neck cancer Prognostication - our experiences so far and what more is possible Dec 2nd 2022 Royal Marsden, Sutton, UK
12. Our experiences with Radiomics for head and neck cancer Prognostication where are we and more needs to be done Dec 9th Translational Radiotherapy Physics, The University of Manchester, UK, The Christie NHS Foundation Trust, UK Dec 9th 2022
13. Creating inclusive, and accessible Artificial Intelligence for health: Perspective from Quantitative Imaging study for head and neck cancer, 24th March 2023, International Conference on Pure and Applied Physics ICPAP, 2023
14. Radiomics- a move from qualitative imaging to quantitative imaging -Continuing Medical Education Nuclear Medicine CMC Vellore April 2021

15. Fellowships and Funding for PhD Scholars and Post-Doctoral Fellows- Physics Alumnus Lecture Series- School of Advanced Sciences VIT University February 2021
16. Radiomics Research-Putting it to Practice Oncorace Foundation Medical Physics for life Aug 2020
17. Early Career Fellowship scheme and Grants writing – India Alliance Jul 23, 2020, Webinar
18. Medical Image Processing- Image formation to computational analysis International Symposium on 'Medical and Radiation Physics' (ISMARP2020).
19. Radiomics for Physicist- Association of Medical Physicists of India TN-PY Kanyakumari, 2019
20. Functional lung avoidance and response – adaptive escalation (FLARE) RT - Association of Medical Physicists of India TN-PY Kanyakumari, 2019
21. Radiomics for head and Neck- subject expert, Federation of head and neck oncologists conference Chennai, 2019
22. Cancer imaging archive - The CMC-Vellore initiative, Scientific Programme for Structuring a Collaborative National Image Banking Program, Tata Medical Centre Kolkota 2019

Journal Editorial Member

Current Medical Issues

Manuscript review committee

1. Applied Sciences
2. Cancers
3. Physica Medica
4. Journal of Medical Imaging
5. British Journal of Radiology
6. Journal of Medical Physics
7. Physical and Engineering Sciences in Medicine

Professional Training

1. Good clinical practice
citiprogram.org/verify/?kc76e88a8-8c37-4c87-ac21-3981ab5ac4fe-23484758
2. **Human subjects Course**
www.citiprogram.org/verify/?k646cbdc3-3521-47bb-9ae7-3868ee2fff81-23359342
3. **HIPPA training - compliance ID 845003107**
4. **UW Radiology Grant Writing Course**