

Poster and Demo Session Assignments – HI-POCT 2019

All posters are required to be displayed during the first two days of the conference, November 20-21, but presenters are only to stand by their posters on their assigned date below during the two hour lunch time. Live demonstrations are required to be at their display the first two days of the conference during the two hour lunch time.

For poster instructions see <https://hipt.embs.org/2019/poster-board-guidelines/>

For Demonstration information see <https://hipt.embs.org/2019/translational-demonstration-showcase/>

Track 1: Health and Wellness Across the Lifespan			
Poster (Paper ID)	Presentation	Presenting Author	Poster Title
1 (1006)	Wed	Babak Moatamed	Scoring System for Conditioning and Wellness Assessment in Athletic Population
2 (1012)	Thurs	Rui Hua	Daily Locomotor Movement Recognition with a Smart Insole and a Pre-Defined Route Map: Towards Early Motor Dysfunction Detection
3 (1017)	Wed	Fatemehsadat Tabei	Motion and Noise Artifact Detection in Smartphone Photoplethysmograph Signals Using Personalized Classifier
4 (1018)	WITHDRAWN	Kasun Samarawickrama	Assessment of Impedance Plethysmography During Reactive Hypereamia
5 (1023)	Wed	Rose Taj Faghih	Facial Expression-Based Emotion Classification Using Electrocardiogram and Respiration Signals
6 (1026)	Thurs	Emmanuel Agu	WeedGait: Unobtrusive Smartphone Sensing of Marijuana-Induced Gait Impairment by Fusing Gait Cycle Segmentation and Neural Networks
7 (1028)	Wed	Rose Taj Faghih	Emotion Recognition by Point Process Characterization of Heartbeat Dynamics
8 (1032)	Thurs	Kranthi Kolli	Machine Learning Algorithm to Predict Coronary Artery Calcification in Asymptomatic Healthy Population
9 (1039)	Wed	Angad Jasuja	Development of an Extensible, Wireless Framework for Personalized Muscle Rehabilitation
10 (1040)	Thurs	John Larocco	Evaluation of Synthetic Setae Pads for Dry Attachment of an Ultrasound Transducer
11 (1042)	Wed	Qingxue Zhang	Deep Learning of Biomechanical Dynamics in Mobile Daily Activity and Fall Risk Monitoring
12 (1062)	Thurs	Qingxue Zhang	All-ECG: a Least-Number of Leads ECG Monitor for Standard 12-Lead ECG Tracking During Motion
13 (1063)	Wed	Kavin Chandrasekaran	Get Up!: Assessing Postural Activity & Transitions Using Bi-Directional Gated Recurrent Units (Bi-GRUs) on Smartphone Motion Data
14 (1045)	Thurs	Waseem Asghar	Development of a Fully Automated Point-of-Care Biosensor for the Rapid Electrical Quantification of CD4+ T Cells
15 (1070)	Wed	Jose Cahue de Camargo Machado	Low Cost EEG System Evaluation for Music Listening Monitoring
16 (1076)	Thurs	Katjana Krhac	A Preliminary Study of the Human Body Communication Channel
17 (1088)	Wed	Mehdi Hasan Chowdhury	Point-of-Care EMG Processor for the Differential Diagnosis of Neuropathy and Myopathy
18 (1093)	Thurs	Michael Friebe	Carotid Auscultation – Towards Point-of-Care Carotid Stenosis Screening
19 (1100)	Wed	Katjana Krhac	A 3D Immersive Platform to Study Wireless Communication and Tracking of Ingestible Electronics

Track 2: Monitoring Chronic Disease and Response to Treatment

Poster (Paper ID)	Presentation	Presenting Author	Poster Title
20 (1002)	Thurs	Shivaram Poigai Arunachalam	Robust Discrimination of Phonocardiogram Signal with Normal Heart Sounds and Murmur Using a Multiscale Frequency Analysis
21 (1009)	Wed	Yudai Sasaki	Automatic Diagnosis by Compact Portable Ultrasound Robot: State Estimation of Internal Organs with Steady-State Kalman Filter
22 (1010)	Thurs	Julia Loegering	Point-of-Care 3D Body-Mapping for Determining Total Body Surface Area of Severely Burned Patients
23 (1014)	Wed	Sean Rubin	Acoustic Assessment of Treatment Response for Children with Acute Asthma Exacerbation
24 (1019)	Thurs	Lei Lin	Deep Metric Learning with Triplet Networks: Application to Hand-Grip Myotonia Quantification
25 (1020)	Wed	Umut Gurkan	Integrated Point-of-Care Device for Anemia Detection and Hemoglobin Variant Identification
26 (1022)	Thurs	Umer Hassan	Smartphone Based Microfluidic Biosensor for Leukocyte Quantification at the Point-of-Care
27 (1030)	Wed	Allison Fellger	Nighttime Sleep Duration Prediction for Inpatient Rehabilitation Using Similar Actigraphy Sequences
28 (1035)	Thurs	Zhenyu Li	Wearable and Stationary Point-of-Care IoT Air Pollution Sensors for Pediatric Asthma Research and Management
29 (1041)	Wed	Imran Saied	Portable and Wearable Device for Microwave Head Diagnostic Systems
30 (1053)	Thurs	Md Sirajus Salekin	Harnessing the Power of Deep Learning Methods in Healthcare: Neonatal Pain Assessment from Crying Sound
31 (1054)	Wed	Leanne Chukoskie	Gaze-Based Video Games for Assessment of Attention Outside of the Lab
32 (1049)	Thurs	Saundria Moed	A Point-of-Care Test for Drug Induced Liver Injury
33 (1072)	Wed	Yuta Katayama	Development of a Patch-Type Flexible Oxygen Partial Pressure Sensor
34 (1075)	Thurs	Warren Smith	A Single-Use, In-Shoe Patient Compliance Monitor for Therapeutic Footwear
35 (1079)	Thurs	Shuai Xu	Soft, Wireless Mechano-Acoustic Devices for Sensing Advanced Physiological Parameters and Body Motion
36 (1081)	Thurs	Minhua Lu	Handheld Photometer for Quantitative Point of Care Urinalyses
37 (1086)	Wed	Andrew Bender	Integrated Sample Preparation with Paper-Based Electrokinetic Separation for HIV Viral Load Testing
38 (1092)	Thurs	Michael Friebe	Surgical Audio Guidance: Using Audio as a Non-Invasive Sensing Tool
39 (1099)	Wed	Md Sirajus Salekin	Automated Assessment of Postoperative Pain in Clinical Environments

Track 3: Infectious Disease Diagnostics and Anti-Microbial Resistance

Poster (Paper ID)	Presentation	Presenting Author	Poster Title
40 (1024)	Thurs	Umer Hassan	Magnetic Phagocyte Quantification Framework for Point-of-Care Diagnostics
41 (1027)	Wed	Behnam Askarian	Smartphone-Based Method for Detecting Periodontal Disease
42 (1065)	Thurs	Khayrul Bashar	Improved Classification of Malaria Parasite Stages with Support Vector Machine Using Combined Color and Texture Features
43 (1015)	Thurs	Waseem Asghar	Development of a Flow-Free Automated Microfluidic ELISA for Detecting ZIKA Virus NS1 Antigen at Point of Care
44 (1064)	Wed	Alexander Trick	Point-of-Care Magnetofluidic Platform for Neisseria Gonorrhoeae Detection and Antimicrobial Resistance Determination
45 (1071)	Thurs	Nikunja Kolluri	Development of a Novel Isothermal Amplification Assay for Sensitive Detection of Plasmodium Falciparum Malaria
46 (1084)	Wed	Victoria Lyon	Feasibility of Self-Testing for Influenza Using Flu@Home Mobile App

Track 4: Early Detection of Disease or Toxicity

Poster (Paper ID)	Presentation	Presenting Author	Poster Title
47 (1005)	Wed	Beena Ahmed	Predicting Dementia Risk Using Paralinguistic and Memory Test Features with Machine Learning Models
48 (1025)	Thurs	Umer Hassan	Conjugated Barcoded Particles for Multiplexed Biomarker Quantification with a Microfluidic Biochip
49 (1029)	Wed	Behnam Askarian	Novel Keratoconus Detection Method Using Smartphone
50 (1037)	Thurs	Benjamin Ingis	3D Printing for Whole Blood Filters Designed for Simple Integration with a Variety of Sensor Platforms
51 (1038)	Wed	Biröl Oztürk	A Novel Nanoscale Electrode for Biosensing
52 (1044)	Thurs	Ridhi Deo	Performance Assessment of Machine Learning Based Models for Diabetes Prediction
53 (1047)	Wed	Ajmal Abdul Azees	Non-Invasive Screening Tool to Detect Anemia
54 (1050)	Thurs	Wanchaloem Nadda	Weighted Extreme Learning Machine for Dengue Detection with Class-Imbalance Classification
55 (1055)	Wed	Sakura Sikander	Prototyping and Initial Feasibility Study of Palpation Display Apparatus Using Granular Jamming
56 (1056)	Thurs	Jennifer Blain Christen	3D Printed Microfluidic Actuation System for Multi-Step Paper-Based Assays
57 (1057)	Wed	Jennifer Blain Christen	Effects of Relative Humidity, Temperature, and Geometry on Fluid Flow Rate in Lateral Flow Immunoassays
58 (1059)	Thurs	Jennifer Blain Christen	Mobile and Efficient Temperature and Humidity Control Chamber for Point-of-Care Diagnostics
59 (1060)	Wed	Jennifer Blain Christen	Colorimetric Point-of-Care Human Papillomavirus Diagnostic Reader
60 (1066)	Thurs	Srinivasa Karthik	A Motion Free Image Based TRF Reader for Quantitative Immunoassay
61 (1068)	Wed	Malay Ilesh Shah	A Portable Colorimetric Reader for Early and Rapid Diagnosis of Sepsis
62 (1051)	Thurs	Wencheng Wu	Breast Cancer Tissue Region Classification from Second Harmonic Generation Images via Machine Learning

63 (1058)	Wed	Akram Mohammed	Machine Learning Predicts Early Onset of Sepsis from Continuous Physiological Data of Critically Ill Adults
64 (1074)	Thurs	Dongkyun Kang	Low-Cost Confocal Microscopy for Point-of-Care Cellular Morphologic Imaging in Vivo
65 (1078)	Wed	Erica Skerrett	Development of a Speculum-Free Liquid Applicator for At-Home Cervical Cancer Screening
66 (1080)	Thurs	Kathryn Kundrod	Isothermal Amplification and Lateral Flow Detection of HPV 16 and 18 E7 DNA
67 (1082)	Wed	Alberto Pablo Trinidad	Non-Invasive White Blood Cell Screening
68 (1083)	Thurs	Mary Natoli	Isothermal Point Mutation Detection: Toward a DNA-Based Rapid Diagnostic for Sickle Cell Anemia
69 (1085)	Wed	Vince Siu	Towards a Quantitative Colorimeter for Point-of-Care Nitrite Detection
70 (1090)	Thurs	Talha Karwa	Reducing Fluorescent Noise in the Application of Saliva Screening
71 (1097)	Wed	Tianjie Cheng	An Unsupervised Machine Learning Framework for Parkinson's Disease Progression Analysis and Subtyping
72 (1117)	Thurs	Jacqueline Linnes	A Versatile Miniaturize Potentiostat for Wearable Biosensors

TECHNOLOGY DEMONSTRATION SHOWCASE- live presentations on both days, Wed & Thur

Demo Number (Paper ID)	Presenting Author	Poster Title
T1 (1007)	Weihua Guan	Live Demonstration of AnyMDx: a Handheld All-in-One NAAT Device
T2 (1101)	Parth Amin	Eysz- in Sight of Consciousness
T3 (1102)	James Lipscomb	Very Low Cost Fully Automated PCR System Free of Amplicon Contamination That Can be Deployed Anywhere, (Laboratory, Doctors Office, Home, or Field)
T4 (1104)	Eric Kriegstein	Non-Invasive Monitoring of Hemodynamics Through Breath: Respirix Cardiospire
T5 (1106)	David Pearce	binx health io CT/NG Assay: the World's First 30-Minute Molecular Point-of-Care Test for Chlamydia and Gonorrhea
T6 (1107)	Sriram Muthukumar	Sweatsensor Dx
T7 (1109)	John Warden Jr.	Bacteria and Protein Testing with Long-Shelf-Life Abs-on-CNT Sensors
T8 (1110)	Alexander Trick	Point-of-care magnetofluidic platform for Neisseria gonorrhoeae detection and antimicrobial resistance determination
T9 (1111)	Chang-Hee Won	Tactile Sensors for Clinical Applications
T10 (1113)	Andrew Wheeler	Early Detection and Prediction of COPD Exacerbation by an Algorithm Driven Rapid Immunoassay
T11 (1114)	Andrea Pais	NovelDx – a Portable, Inexpensive and Rapid Point-of-Care Molecular Diagnostics System
T12 (1115)	Paula Gardiner	Our Whole Lives a e health platform for chronic pain and chronic diseases
T13 (1116)	Jacqueline Linnes	A Diffusion-Based Biosensor for In-Field Pathogen Detection
T14 (1118)	Umut Gurkan	Integrated Point-of-Care Device for Anemia Detection and Hemoglobin Variants Identification