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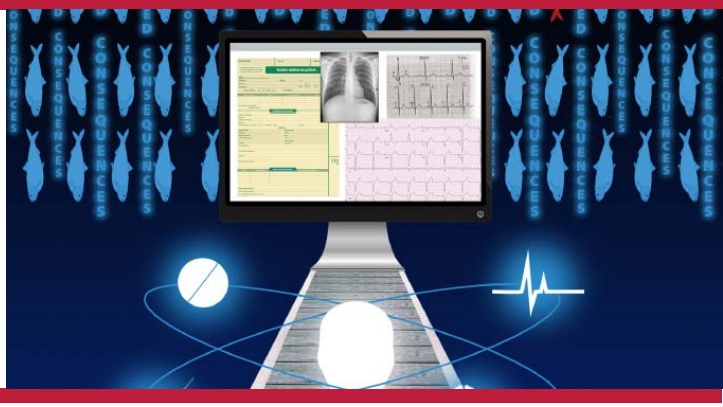

Ringvorlesung Medizinische Informatik

Personalized Ambient Monitoring

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Vorlesung:	22.08.2019 14:00 – 15:30
Nachbesprechung:	03.09.2019 13:15 – 14:45
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Herr Mostafa Haghi, Mitarbeiter der Universität Rostock, wird das aktuelle Thema seiner Forschung präsentieren. Unter dem Titel “Personalized Ambient Monitoring” geht er dabei auf die Nutzung von Wearble Devices zur personalisierten Überwachung in Bezug auf die umgebende Luftqualität ein. Dazu stellt er sein eigens entwickeltes, tragbares Sensorsystem vor, welches verschiedene Gase aus der Luft erkennt und weitere Parameter wie Temperatur, Feuchtigkeit und Luftdruck misst und zusammenhängend auswertet.

Herr Mostafa Haghi selbst gibt dazu folgende Motivation an:

Due to rapid urbanization and industrialization, individual’s exposure to air pollutants and in larger scale, ambient parameters monitoring is a concern in safety and reliability of working conditions and in healthcare as well. In recent years, and after promising experiences with m-health, e-health and in general remote health monitoring (RHM), methodology of medicine in healthcare and occupational is shifting gradually from the traditional (treatment after diagnosis) to preventive and predictive (p2Health). Therefore, in the new era of remote healthcare, medical internet of things (mIoT) is at the center of concentration. In mIoT and p2Health, the personalized monitoring, including different area of effective parameters in healthcare is seriously considered (physiological, motion and ambient parameters).

Wearable devices/prototypes are the means of personalized monitoring. In particular, wearables in ambient parameters monitoring are in need, where the numbers of stations in ambient monitoring are restricted due to expense, complexity, and high maintenances. Furthermore, these stations only provide an overview on the surrounding that does not necessarily indicate an individual exposure. Commercial devices and prototypes have been widely provided but still there is a serious lack of efficient wearables in ambient parameters monitoring in terms of multi-parameters/comprehensive monitoring, mode of wearability, prolonged monitoring, and data protection.

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