

## **Development of Highly Sensitive Interdigitated Electrode (IDEs) Biosensor to Determine Glucose Level using Saliva as Sample**

### **Absract**

This research focus on introducing an non invansive and highly sensitive interdigitated electrodes (IDEs) biosensor to measure the glucose level in human body by using saliva as sample. The IDE was fabricated using simple convention photolithography process and surface functionalization by using MWCNT. The result of the IDE undergoes physical characterization by using HPM, SEM and AFM, beside physical characterization electrical characterization was carried out. Difference concentration of reference glucose sample (10mM-1uM) was tested before using real biomolecule sample(saliva). Blood sample measurement was taken by using blood glucose meter and saliva was using IDEs. The result was taken and been compared. The blood and saliva sample was taken from a voluntary person every two hours starting from 10 am until 10 pm.