

# CONDUCTIVE POLYMER COATED TEXTILES FOR BIOSIGNAL MONITORING

N.MUTHUKUMAR<sup>1</sup> & G.THILAGAVATHI<sup>2</sup>

<sup>1,2</sup>Department of Fashion Technology, PSG College of Technology,  
Coimbatore-641004, India.

## ABSTRACT

In the last few years, the smart textile area has become increasingly widespread, leading to developments in new wearable sensing systems. As conventional sensor techniques often cause problems for long term patient monitoring (e.g. skin irritation, hampering wires), elegant solutions are explored to integrate sensors in clothing. By using the textile material itself as a sensor, the integration is increased resulting in even more patient friendliness. Truly wearable instrumented garments capable of recording behavioral and vital signals are crucial for several fields of application. This paper describes the applications of conductive polymer coated textiles particularly polypyrrole in wearable medical monitoring systems.

**KEY WORDS:** conductive polymers, electrode, polypyrrole, polyurethane foam, smart textile