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Design of Foot-Inserts Based on Foot Reflexology Study for the Design of Foot Inserts Based on Foot Reflexology

S. Mathivanan², Ramesh C. Panda^{1,*}, and S. P. Anandaraman³

^{1,*}*Dept of Chemical Engineering, CSIR-Central Leather Research Institute,
Adyar, Chennai 600 020, India
E-mail: panda@clri.res.in*

²*SPDC, CSIR-Central Leather Research Institute, Adyar, Chennai 600020, India
E-mail: mathivanans@hotmail.com*

³*SPDC, CSIR-Central Leather Research Institute, Adyar, Chennai 600 020, India
E-mail: spanandaramann@gmail.com*

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ABSTRACT Human palms and feet have reflex points connecting to different organs of the body through a neurological network that stimulates the specific organs. Application of pressure on the reflex points helps rebalance, heal, and improve blood circulation. Footwear is designed to induce pressure through these reflex-points located over the plantar surface of feet. Five zones are identified to study projected inserts/designs to investigate acupuncture pressure reflexes for overall wellness and stress management. Several functional prototypes are developed to adopt pressure/sensational acupuncture therapy on different sensitive zones underneath the feet to study the performance of reflexology diagnosis. A customised reflex-foot-insert is designed to study specific performance towards relaxation/comfort of identified participants (7 samples) during their static standing phase. Varied densities of polyurethane are used in the design of reflex-inserts. D-120 has been found to provide more contact surface area resulting in less pressure for males whereas D-95 has imparted similar effects for females.