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(71)**Name of Applicant :**
1)Chitkara University
Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ---------- ----------
2)Bluest Mettle Solutions Private Limited
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)MISHRA, Rahul
Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ---------- ----------
2)PANDEY, Sakshi
Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ---------- ----------
3)MANTRI, Archana
Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ---------- ----------

(57) Abstract :
Embodiments of the present disclosure relates to a method (100) of manufacturing flexible electronics components and the development and production of electronic devices that possess flexibility, conformability, and versatility in terms of shape, allowing them to adapt to various surfaces and applications. The method begins with preparing a flexible substrate. Next, the method deposits active electronic components onto the flexible substrate. Next, the method deposits passive electronic components onto the flexible substrate. Next, the method creates conductive paths between the active and passive components. Next, the method forms vias to establish vertical interconnects between different layers of the flexible electronics component. Next, the method deposits dielectric layers. Next, the method applies a protective encapsulation layer. Next, the method utilizes flexible encapsulation materials. Next, the method conducts electrical testing and mechanical testing to evaluate the flexibility, durability, and resistance of the flexible electronics component.

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