Holistic Battery Safety Design for Electrical Aviation

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This work discusses using a holistic approach to safe battery designs for electrical aviation applications. Mechanical wear & tear and stresses unique to electrical aviation create significant challenges for even the most experienced Design Engineers. Today's electrical aviation battery designs require extensive modeling, design and testing at the cell, pack and end application levels, and need innovative PPR solutions in the event of thermal runaway to ensure optimal safety. In addition, today's battery designs need to be sustainable by ensuring recyclability and the use of nonhazardous PPR solutions in a circular economy.