

Problems of Using Mobile Photovoltaic Installations

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Abstract : The dynamic development of photovoltaics in the 21st century has resulted in more possibilities for using photovoltaic systems. In order to reduce emissions, a retrofitting of vehicles with photovoltaic modules has recently become increasingly popular. Preparing such an installation, however, requires professional knowledge and compliance with safety rules. The paper discusses the advantages and disadvantages of some types of flexible photovoltaic modules that can be applied to mobile installations, types and causes of damage to photovoltaic modules as well as the most frequent types of misinstallation. Our attention has been drawn to the risk of fire caused by misintallation or defective insulation and the need to closely monitor mobile installations, for example by a non-destructive testing with a thermal imaging camera. The paper also presents certain selected results of the research conducted at the Lublin University of Technology. This work has been financed by the Polish National Centre for Research and Development, under Grant Agreement No. PBS2/A6/16/2013.

Keywords : flexible PV module, mobile PV module, photovoltaic module, photovoltaic

Conference Title : ICEESD 2016 : International Conference on Energy, Environment and Sustainable Development

Conference Location : San Francisco, United States

Conference Dates : September 26-27, 2016