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## **FLY ASH CEMENT CONCRETE WITH STEEL FIBERS - COMPARATIVE STUDY**

**Adrian Alexandru Șerbănoiu, Marinela Bărbuță\*, Andrei Burlacu,  
Cătălina Mihaela Grădinaru**

*"Gheorghe Asachi" Technical University of Iasi, Faculty of Civil Engineering and Building Services, No. 1,  
Prof. Dimitrie Mangeron Blvd., 700050, Iasi, Romania*

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### **Abstract**

The experimental results of studies on cement concrete with fly ash and metallic fibers are presented and are compared with a control mix. In the tested mixes five dosages of cement replacement with fly ash and two dosages of metallic fibers were considered. Mechanical characteristics such as compressive, flexural and split tensile strengths were experimentally determined. Tests results had shown that fly ash as replacement of cement generally reduced the mechanical strengths of concrete. In the case of flexural and split tensile strengths both dosages of fiber increased the strength, the increase was more significant in the case of higher fiber dosage. The fiber concrete with higher replacement of cement with fly ash presented higher values of flexural and split tensile strength.

*Key words:* cement concrete, compressive strength, flexural strength, fly ash, metallic fiber split, tensile strength

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\* Author to whom all correspondence should be addressed: e-mail: [marinela.barbuta@tuiasi.ro](mailto:marinela.barbuta@tuiasi.ro); Phone: +40735845557; Fax: +40232233368