In 2018, the School of Engineering of Universidad de Antioquia (UdeA) celebrated its 75th anniversary. Within this commemoration, the School organized ExpolIngeniería 2018, a broad forum for the interchange of knowledge between Academia, Industry, and the State. Having “Development and sustainability” as a leitmotif, this event included several parallel activities, namely: an international congress with 3307+ attendants, the business and innovation roundtable Tecnova 2018 with 2100+ business meetings and the fifth Workshop on Engineering Applications of Computer Science with 130+ attendants and 91 contributed papers, among others.

Remarkably, the main Engineering fair (ExpoIngeniería 2018) reached a broad public of more than 28000 attendants, ranging from high school students to researchers and industrial practitioners. The Expo was the opportunity to join together more than 42 research groups from academia and industry. The goal of the Expo was to showcase the contributions generated in the Engineering field by the UdeA School of Engineering as well as other partner universities in a broad range of traditional, new and emerging domains such as: Energy and environment; Materials, chemistry and bioengineering; Infrastructure, mobility and logistics; and, Telecommunication, information technologies and computer science.

As part of this celebration, we edited this special issue of Redin - Revista Facultad de Ingeniería. The call was open and received seven submissions from academics and practitioners. After a rigorous review process, we proudly present four papers that were accepted and are published in this issue of Redin. These four papers include one in the renewable energy field (Edwin Chica, Fredys Romero Menco, Ainhoa Rubio Celemnte. “Design of a wave energy converter system for the Colombian Pacific Ocean) and three in alternative [natural] materials, its processing and applications (R. Prakash, R. Thenmozhi, Sudharshan N. Raman, C. Subramanian. “Mechanical behavior of polypropylene fibre reinforced concrete containing waste coconut shell as coarse aggregates and fly ash as partial cement replacement; Dario Alfonso Páez Soto, Luis Jorge Herrera Fernández, Oscar Esneider Acosta Agudelo, Marcelo Herrera Martínez. “Design and construction of an acoustic conditioning panel made from typical Colombian fibres”; Estefanía Echeverri Correa, David Orlando Grajales Lopera, Santiago Gutiérrez Restrepo, Claudia Patricia Ossa Orozco. “Effective sericin-fibroin separation from Bombyx mori silkworms fibers and low-cost salt removal from fibroin solution”).

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