Letter from the Editor

Dear Colleagues,

Welcome to issue No 105 of International Journal of Rope Science and Technology (IJRST), published at such a special period of our history - the pandemic brings such dreadful impacts to many aspects of our work and life. As you may know our biennial conference OIPEEC 2021 in conjunction with Stuttgart Rope Day planned originally to be held in March next year has been postponed to 2022. I do hope you and your family and friends all are safe and healthy.

As you know IJRST is the other serial publication of OIPEEC in addition to the Proceedings of OIPEEC Conference. IJRST started as the Bulletin of OIPEEC in 1964 and was registered in 1991 with an International Standard Serial Number ISSN 1997-6461. 104 issues have been published since and they have played an important role in facilitating communications of rope research, development and application in our rope community particularly during time between two Conferences. I would thank Professor Ugo Rossetti, Professor Richard Chaplin, Dr Isabel Ridge and Martin Dohm for their tremendous contributions when they were editors of IJRST.

More information about topic areas, types of papers are available on the OIPEEC website. To attract more manuscript submissions to the Journal, the OIPEEC Management Committee have decided recently that one of the authors of a full paper will be entitled to pay their registration fee of the following OIPEEC Conference at the same reduced rate as authors of the Conference papers and will be given priority of oral presentation in the conference.

We are really pleased that two high quality papers have been received and accepted for publication in this issue after review and revisions. Six colleagues from three French organisations: Eurobios, RTE-R&D and Univeristé Paris-Saclay, led by Dr Abderrahim Belkhabbaz contributed a paper entitled “Methodology for analysis of critical contacts within an overhead conductor using a wire model”, which investigates the fretting between conductor wires in overhead conductors that causes crack initiation by using a wireframe model. The paper presents very interesting work on validation and verification of the model by comparing it with experimental results. The good agreement between the model and experiment results reported in the paper makes it possible to clearly describe the change in bending stiffness as a function of curvature, key to the prediction of the deformed shape of a vibrating conductor. Based on the research work they will establish Wohler curves (S-N curves) at a larger scale, which I hope can be published in IJRST too in the near future.

A second paper was received from Xianyang BOMCO Steel Tube & Wire Rope Co Ltd, known as “xy rope” outside China (probably because of their website
www.xyrope.com), about 75 km from the Terracotta Army Museum. The authors Zhijun Shen, Wanxin Qin and Yuanbo Yu report their work on the influence of lay types on curvature period of the double spiral steel wires in wire rope by using differential geometry. In the paper they establish the coordinate equation of the double spiral steel wires in wire rope and provide the formula for calculating the curvature period ratio of the double spiral steel wires with the same structure and expressions of the ratio between rotation angle in wire and revolution angle in strand. I am sure colleagues working on rope design, mechanics and modelling will find the paper particularly interesting.

My contribution: I feel “obliged” to contribute something beneficial to readers of the journal and at the same time to leave my mark as the new editor of OIPEEC, also as a rope person (a fairer word than “rope man”) I have always been curious about where else rope research has been published besides OIPEEC. So I made rope literature searches and some statistical analyses trying to answer the following questions: where else is rope research published, besides the OIPEEC Journal and Conference Proceedings? How are key topics of rope covered by these publications, e.g. what are the percentage of publications in raw materials, design, test, characterisation (NDT, DNE) and application respectively? What is the ratio between publications in wire rope and fibre rope? Also China is by far the number one in terms of annual rope production, but number of papers published in OIPEEC does not reflect it at all, what is the situation elsewhere? How many papers are published in Chinese? I hope you will enjoy reading my article too.

Looking into the future, man will win against viruses and “We'll Meet Again” at the next OIPEEC Conference. Meanwhile we can, and we should, keep in touch by all modern means of communications and make the best out of the worst, for example “working from home”, “holiday in the garden”, and maybe an opportunity to write a paper for this journal: why not?

At the end of this report, may I wish you all keep safe and healthy!

Pengzhu Wang, PhD FIMMM CEng
Editor of OIPEEC Journal and Conference Proceedings
editor@oipeec.org