

Overall Data

Title	For the New Normal, New Norms
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Area	Applications & Case Histories

Abstract

The “new normal” has overcome the status of trend and it is driving the most relevant movements and investments worldwide. Through the COVID-19 pandemic, the crisis can be taken as an opportunity of transformation, as an ultimate catalyst for transitions within a limited time window. For a gear society already pressured by trends such as the fourth industrial revolution and the electromobility, the opportunity reveals to be a driver of new researches and updated norms. In this context, this study is composed of a critical review over 20 standards and guidelines published by ISO, AGMA, ASTM, FVA, DIN, SAE and ANSI. Six technical points collected from these documents are approached: Roughness; Materials; Gear Body; Gear Tooth; High Speeds, and; Residual Stresses. The investigation points out to the specific points which could be updated to be in better convergence with the new technical requirements brought by these trends. If the future demands “Super Gears”, which are stronger, quieter and more efficient gears, the Industry-Academy cooperation must be even strengthened to support the establishment of new norms according to the timing of the new society.