ISSN: 2168-9873
Journal of Applied Mechanical Engineering

OPEN ACCESS Freely available online

Perspective

An Overview of Mechatronics

Vinod Kumar *

Department of Mechancal Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India

DESCRIPTION

At first examination, two types of mechatronic products can be distinguished those which were originally conceived as mechatronic products and those which originally mechanical have become mechatronic through elaboration or metamorphoses.

The watch is a veritably good illustration. Principally the watch is an object whose functions are entirely composed of mechanical factors. In a first classical mechatronic interpretation, the power source is a battery, the time base a quartz oscillator, but the display remains mechanical approach has comported in conceiving nearly ex nihilo a completely electronic watch including the display the only mechanical element which remains being the watch case the vessel.

The ideal case is that of the products which were mechatronics right from the morning but it concerns a new generation of products which have been developing for a many times. Firstly, there's an object whose factors are nearly all mechanical, that's to say that all the functions performed by this product are grounded on mechanical factors. In the last phase, it's a mechatronic product which is attained, either by adding new functionalities whose realization is grounded, of course, on electronic factors or by substituting for a given function, an electronic realization for the original mechanical realization.

One must contend on the fact that mechatronisation does not have to be methodical. Introducing electronics into a product may occasionally increase its cost unnecessarily and bring no real enhancement. Also, it may be refused by the customer for case; some telephones contain an inconceivable number of functionalities which, in the long run, appear to be useless, or too complicated to be generally used. But in cases where mechatronisation is performed cleverly, it can also allow to get request shares. Substituting a mechanical function for an electronic original frequently gives product revitalization (an alternate marketable life); the essential donation of mechatronics finds its origin in the parcels given by electronics and results in an enhancement in the product's performance and in the reduction of the costs linked to its manufacturing. Roughly speaking, it can be said that mechanical rudiments do by swapping energy, while electronic systems induce, carry and treat information in the form of electric signals. More precisely, detectors pick out information concerning the mechanical part. The information is dealt with intelligently latterly on, according to a pre-established. Objective and reciprocated accordingly to the mechanical part in the form of action control. So, one of the most important aspects of mechatronics is the possibility to integrate detectors into the product this allows to make a great deal of data available fluently and instantaneously. These data can be dealt with quickly, in real time, which allows having at one's disposal an effective control organ or a decision- making system. Moreover the possibility to memorize data. Allows the perpetration of all types of regulation or complex automatisation as mentioned over, the electronic realization of a given. Function is generally less bulky than its mechanical realization. So, miniaturization is an effect of mechatronics it's one of the consequences of more and more elaborate integration of electronic components due to the progress performed in micro-electronics. Nearly all the products on the request are mechatronic. The time has come to goods which will be mechatronic right from the start, by using a mechatronic procedure. The mechatronic procedure allows the implementation of projects which couldn't be performed only through mechanics, electronics and computer science taken separately. It also leads to create products with extra properties, and completely new products. It's therefore a source of innovation and laterally of new jobs.

Correspondence to: Vinod Kumar, Department of Mechancal Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India, E-mail: Vinodkumar9@gmail.com.

Received: 04-Jan-2022, Manuscript No. JAME-22-396; **Editor assigned:** 06-Jan-2022, Pre QC No. JAME-22-396(PQ); **Reviewed:** 20-Jan-2022, QC No. JAME-22-396; **Revised:** 25-Jan-2022, Manuscript No. JAME-22-396(R); **Published:** 31-Jan-2022, DOI: 10.35248/ 2168-9873.22.11.396.

Citation: Kumar V (2022) An Overview of Mechatronics. J Appl Mech Eng. 11:396