Electric UAV Drones: Autonomous, Energy Independent 2017-2027

Description: It is grossly misleading that most reporting on unmanned aerial vehicles UAV has recently concentrated on the sideshow of toy multicopters going out of fashion. We also are told of toy and other simple versions dropping 70% in price, with more to come, so manufacturers and investors outside China, who should have known better, are wiped out. Investment is now virtually impossible to obtain, they say.

There is a different reality. Drones are overcoming problems of direct human involvement in dirty, dangerous, boring, slow and imprecise operations that need to be done better and they will even be used for currently impossible tasks. The analyst forecasted the price collapse of toys but also the huge opportunities in specialist hardware and most software and services elsewhere.

This report reveals a parallel universe of drones of all sizes receiving billions of dollars of investment so they and their associated services create multi-billion dollar markets in hardware and services. It is an amazing world of tethered and upper atmosphere drones staying up for years, some creating 100kW of electricity and others beaming the internet to 4.5 billion people still waiting for it. Contrary to popular opinion, the analyst reveals that the next advances in hardware and software mainly revolve around autonomy and energy independence.

Swarming theory and endowment of curiosity will transform security and other applications. Here is the only report encompassing all of this, based on new research worldwide carried out by multilingual PhD level analysts. For those wanting even more on specifics, there are related reports on robotics, electric vehicles, agrirobots and so on and all the reports have 30 minutes of free consultancy attached.

Here we have over 160 pages of densely packed but easily understood PowerPoint infograms, forecasts and roadmaps involving over 400 players with the most significant work identified using a profusion of images. There is an executive summary with the technology and evolving uses crisply explained followed by detailed evaluation of players, market forecasts and roadmaps. Alternative forecasts by others are also presented.

The introduction chapter looks at definitions and briefly introduces key aspects that are more fully analysed in the subsequent chapters on applications, possibilities and next technologies. However, this is not the madcap enthusiasm that mars so many other publications. Following the collapse of the toy market and commoditisation of simple drones for photography, forecasts disillusion setting in with postal delivery by drone in dense urban environments for example, giving reasons. On the other hand the report reveals many gaps in the markets that are opening up including several technologies and applications not reported in any other drone publications.

Because the analyst has carried out deep research on allied subjects such as autonomous, energy independent and electric vehicles in general and new sensor technology, this report benchmarks what is going on in other sectors.

It avoids the tunnel vision of other commentators. Learn where there are better alternatives for some drone applications but huge opportunities for others soon to be trialled, such as autonomous, helium-filled aerofoils carrying heavy freight across continents and postal drones in remote areas that avoid most of the problems by dropping parcels not landing.

How will we get the necessary ultra-efficient powertrains? What is the route to new regeneration creating on-board electricity instead of wasted heat and movement? How do we make viable the new forms of energy harvesting of ambient energy such as sun and wind? It is all here. The report ends with examples of insightful interviews recently carried out across the world.

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