

a consequence, he suspected that the growing human emission of greenhouse gases (GHGs) may cause a change in climate. Also, the extinction of species or loss of biodiversity, ecological change, and loss of natural habitat of many species are long known ongoing processes in nature and were rightly guessed to be a consequence of climate change. Svante Arrhenius in 1896 attacked the problem of estimating the global warming as a function of atmospheric carbon dioxide level. The global recording of temperature with future improvements became a reality since around 1850. Mean global temperature during 1850-1890 was 13.7°C and around 1960 it became 13.9°C (five year mean). The United Nations (UN) took note of the developments and declared 5th June as the World environment Day (WED) in 1972, and this day is being celebrated each year since 1974. India was the International Host of 2018 WED with the theme “Beat Plastic Pollution”, a problem that is practically engulfing the entire planet. China will hold the International Event this year (2019) with the theme “Air Pollution”. Another serious challenge, namely the ozone depletion particularly over the antarctic atmosphere, was revealed in 1985. The United Nations took a decision in 1987 banning the emission of halogenated gases. As a benefit, ozone hole is now healing, although it might take well over 50 years for complete

recovery. On the contrary, the problem of global warming is becoming grimmer gradually. For last three decades, each decade is warmer than its previous decade, and these three decades are the top three hottest decades among the decades since 1850. The current warming rate is 0.15-0.20°C per decade and the present value of global warming is 0.9°C. UN had set a target and was motivating the nations to act accordingly to limit global warming within 2°C from the reference point 14°C (the global mean over the period 1951-1980). Now it appears that the limit 2°C is quite high and disastrous. In 2018, in an IPCC (UN Intergovernmental Panel on Climate Change) resolution, the target is set at 1.5°C. Scientists believe that the present man-made crisis can be abetted by appropriate human efforts. The success lies, along with other measures, in the development and implementation of use of clean energy like coal-free and, in general, carbon-free energy worldwide. Works are going on in this regard in different corners of the world, particularly in UK. In this seminar we observed an overwhelming response in favour of such measures and the urge to educate people accordingly.

(A few Photographs of the event are printed on back inside cover)

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News Review

100 Years over Atlantic Flight in open Cockpit

John Alcock and Arthur Whitten Brown struggled for 16 hours in open cockpit through ice rainstorm, snow and cloud across Atlantic and made history. With a remodelled bomber they had as the first in nonstop flight crossed the Atlantic. The adventure had started in Canadian New found land and where Alcock and Brown with their aviation petrol loaded two motor double Decker took off on the 14 June 1919. During the flight over about 3200 km height the electric generator went out of commission so that both of them had to abandon their setup on telephone, board communication apparatus and the

heating. During snowstorm Brown climbed in 2500 m flight height on the wing in order to relieve the air intake of the motor from ice with his knife. With the landing near the West Irish Coast City Clifden the bomber crashed while the chosen meadow for the landing turned out to be a marsh.

In the year 2005 two US –American repeated the flight with a similar Vickers Vimy. The landing came off smoothly the golf place instead of on marsh as before.

VDI nachrichten, 14 June 2019, Nr. 24, Seite 3

Starting shot for Quantum Engineering

The foundations of quantum research are there now it should go for application. The University of Saarland offers from next winter semester the interdisciplinary bachelor study programme “Quantum Engineering”. Also ETH Zurich educates from spring quantum engineering which

should serve the query for skilled personnel. They will work between the disciplines electro technique and quantum science (previously known under physics). At least from the name itself quantum engineering has the potential to be the new “Rocket Science”.

Gravitational Force and Light

Physics: A picture should bring forth the first, experimental proof of Einstein’s “Relativity Theory”. For this Sir Arthur Stanley Eddington waited for total solar eclipse on 29 May 1919 on the Prince Island in the Gulf of Guinea with a camera. Why? The Relativity Theory indicates that gravitation is in a position to diffract light. This hypothesis, the British astronomer mathematician and physicist could only verify when star light fell past on the earth very close to the sun and through the diffraction the position of the star appeared changed. While in back light of the sun however no star is to be recognized.

Eddington travelled to Africa for the next total solar eclipse. Here he pressed on the trigger at the right moment and fixed on the generated snapshot. The position of the star appears in fact shifted compared to a photo, which was generated one and a half years before in the night. With that the exactness of the relativity theory as claimed by the British physicist was proved. The extremely small deviation led again and again to doubt to the Eddington’s reasoning, however, it was insignificantly corrected in 1979 by a new measurement.

VDI nachrichten, 7 June 2019, Nr. 23, Seite 3

Anil Kumar Ghosh



Hacker vis-à-vis Medical Professionals

IT Safety: The careless treatment with safety measures in hospitals and physicians’ consultancy rooms causes main targets of cyber attack. Stolen incoming data are the gateway in any concern and the cause of most thefts of sensitive pieces of information. Before April 2019 the United Association of Insurance Economy adopted some serious study to this effect. It investigated how clinics and physicians’ consultancy rooms with password turn around with alarming results.

The authorized IT specialists in the framework of the study found in darknet 60% of the

incoming data of the German clinics as also one of ten physicians’ consulting rooms. Many doctors apparently are lacking the consciousness for IT safety. 9 out of 10 physicians utilized easy to guess password regarding treatment or their own names according to the study.

Easy booty (spoil): The safety of the patient data is inadequate. The analysis of the e-mail server of around 1200 settled down doctors showed that only 5 observed standing of technique of the Federal Office of Safety in the information technique (BST).