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VP News

Inside

Ham Radio Training Programme

A training Programme on ham radio has been started at Vigyan Prasar to help interested persons become hams by clearing the Amateur Radio Station Operator's Certificate examination conducted by the Ministry of Communications.

The course began on June 01, 2001 and is expected to continue for about six weeks. At present about twenty prospective hams have been taking training and are preparing for the ASOC grade I / II examination. Study materials have been provided to the participants. The programme began without any fanfare. Dr. V. B. Kamble, himself a ham with call-sign VU2VBK, delivered the inaugural talk highlighting the need, utility and importance of ham radio especially during the natural calamities.

A live demonstration was organized by Shri Sandeep Baruah, VU2MUE. Several ham radio stations from different parts of the country provided support for the demonstration. Karan Bakshi VU3GTF (Delhi), Rakesh Kapoor VU2RAK (Delhi), Kumar VU2XD (Delhi), Deb VU2DAD (Akaltara, Chattisgarh), Madan Mohan Prasad VU2MMP (Begusarai, Bihar), and Dipu VU2DPD (Calcutta) were the hams who participated in the demonstration with the NCSTC / Vigyan Prasar ham radio club station VU2NCT. Different modes of radio communication (Morse code, telephony & Computer to Computer) were demonstrated to the participants. Shri D.P. De, VU2DPD from Calcutta responded to the Morse Code call from VU2NCT, and later on voice, Computer to Computer communication through amateur radio was demonstrated with the help of Shri Karan Bakshi, VU3GTF - a young and active amateur radio operator from Delhi. Text messages were exchanged between VU3GTF and VU2NCT's computers.

EDITORIAL

Planck and the Quantum of Energy



Intellectual Property Rights (Part-II : Trademarks, Industrial Designs and Copyright)

VP starts a chat session

In our process of popularising Science and Technology, Vigyan Prasar has started a chat session on its homepage "www.vigyanprasar.com" or "www.vigyanprasar.org". This one-hour online interactive chat session is on different popular S&T topics like Health and Medicine, Basic Astronomy, Impact of Pesticides on health, Information Technology, Environment etc. The participants in the chat session can share their views, and know more about the subjects by asking questions on any of the S&T related topics and the experts or specialists in the respective topics will answer the questions.

The first topic of the chat session was "Wonders of the Sky" held on 26th May, 2001 at 11.00 a.m.

Our expert in this session was Mr. Biman Basu, editor of popular science magazine "Science Reporter". The participants asked questions related to Astronomy in this session, which were answered by Mr. Basu.

Dr. Yatish Agarwal, doctor and popular health columnist was the expert for our second Chat session on "Health and Medicine" conducted on 9th June, 2001. Similarly, we will have many more chat sessions on S&T topics. The topics and experts will be pre-selected and announced in advance on our homepage from time to time.

We welcome you all to participate in this online chat sessions by logging onto our homepage "www.vigyanprasar.com" and "www.vigyanprasar.org" and get all your queries answered by our experts. In case you are unable to access our homepage, you can email your queries in advance or immediately after the session to vigyan@hub.nic.in

... think scientifically, act scientifically ... think scientifically, act scientifically ... think scientifically, act...

Predicting the Future

The celebrated British physicist Stephen Hawking was in Delhi on January 17 to deliver the Albert Einstein Lecture 2001. Interestingly, the topic of his lecture was "Predicting the Future: From Astrology to Black Holes". In his characteristic style he said, "the reason most scientists don't believe in astrology is that it is not consistent with our theories which have been tested by experiment". This implies that for a subject to be projected as science, it is necessary to examine whether it follows the scientific discipline by making specific assumption on which it rests. It also follows that the predictions need to be accompanied by tests to prove them right. Indeed, this is how science and society have progressed. Sometimes, the basic ideas or assumptions on which the theory is based, may need to be modified or even discarded when more accurate observations are found to be going against them. An example is the Newtonian gravity. Though highly successful, it was improved upon by Einstein's theory of relativity. There is no gainsaying the fact that a scientific prediction is always characterised by a principle that is provable.

Astrology has been here for centuries, and continues to fascinate the human beings, many of whom even scrupulously regulate their daily activities based on their astrological forecasts. How is it that we wait for the Sunday newspapers for our weekly forecasts? Despite the overwhelming scientific evidence that the positions of the planets and the times of birth do not dictate the course of human affairs, astrology will be with us in the foreseeable future. Why is it so? Given the unpredictable turns in the lives of the individual, often chaotic, most of us long for the comfort of having guidance in making decision. It gives a heady feeling when an astrologer tells us that our personal character and destiny are tied up with the stars – of course for a fee! Further, it is so convenient to blame our failures on cosmic events that are beyond our control! It is this urge to seek correlations between the unpredictable turns in the lives of the individuals and regular movements of the planets that astrology came into being.

Even five centuries after Nikolaus Copernicus, astrologers continue to base their predictions on the assumption that the Earth is at the centre of the universe. In Vedic astrology, the "planets" include the Sun, the Moon, Mercury, Venus, Mars, Jupiter, Saturn and Rahu and Ketu. Incidentally, Rahu and Ketu do not even have any physical existence. Uranus, Neptune and Pluto even after they were discovered, have failed to secure a place in this list. Despite the assumptions at variance with the established knowledge, the horoscopes of individuals are expected to predict their future accurately. Did all those who perished in the recent Gujarat Earthquake have this unfortunate event predicted in their horoscopes? May be, it would be worthwhile instituting a study for the purpose. A famous astrologer states that in astrological predictions what matters is "intuition" – more than anything else. Obviously there is no way to test a theory based on assumptions that are not well-defined or rely on one's intuition alone!

Indeed, astrology has played an important role in the growth and development of human understanding of natural phenomena. The study of planetary motions was prompted by the demands of astrology for determining planetary positions with greater accuracy. Just the way alchemy led to the study of chemistry, astrology led to the study of astronomy. Astrology had its influence on human history as well, the study of which could certainly be relevant and useful.

However, it must be remembered that all scientific disciplines derive their legitimacy from the scientific method, the foundations of which include, a respect for data, consistent reasoning, observational checks and the possibility of experimental refutation. At this juncture one may ask, with an "open mind", if the method or practice of astrology conforms to the method of science.

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