

**INTERNATIONAL WORKSHOP ON ELECTROMAGNETIC STUDIES  
RELATED TO EARTHQUAKES AND VOLCANOES  
(IWEMSEV-2006)  
20-22 November, 2006**

**PROGRAMME**

**Date: 20 November, 2006 (Monday)**

<u>Time</u>	<u>Activity</u>
0830-1000	Registration
1000-1100	Inauguration
1100-1130	Tea
1130-1330	Session I: Earthquake monitoring and prediction: Current Status (Chairman: V. Spichak)

**Paper ID**

**Speaker**

**Title**

SP-1	S. Uyeda	Earthquake Prediction: Current Status
SP-2	H.K. Gupta	Earthquake Forecast: What could be done in India?
SP-3	P.Varostsos	Analysis in natural time
IP-1	H.N. Srivastava	Evolving a reliable methodology towards earthquake prediction based on multi- parametric observations

1330-1430

LUNCH

1430-1630

Session II: Monitoring of earthquakes and Volcanoes using conventional and latest techniques(Chairman: J. Zlotnicki)

**Paper ID**

**Speaker**

**Title**

IP-2	MJS Johnston Karl Kappler U.C. Barkeley	Dynamic Seismo-Electromagnetic effects
IP-3	T. Harinarayana	Active monitoring of magnetotelluric (MT) signals along with other geophysical parameters and it's relation to precursory phenomena for the low magnitude seismic activity in Koyna region, Western India
IP-4	W.M. Boerner, K.S. Chen	Implementation of different repeat –pass SAR interferometry for the search for earthquake precursory land –cover deformation in Taiwan in coordination with the integrated search for Taiwanese earthquake precursors iSTEP Taiwanese program for promoting research excellence
CP-1	Farshed H. Karimov	Physical classification of earthquake precursors
CP-2	S.Cht. Mavrodiev L. Pekevski, T.Jimseladze	The regional earthquake research and prediction NETWORK
CP-3	V. Spichak V.Borisova, E. Fainberg, A. Goidina, A.Khalezov, A. Khromov	Three –dimensional imaging of the Volcano elbrus (Northern Caucasus) based on the MT and satellite data

**Allotted Time: SP=30 Min., IP= 20 Min., CP=12 Min.**

CP-4	Jun Izutsu, Toshiyasu Nagao, Junji Kanaya, Tomiichi Uetake, Hideyuki Murayamma	Observation of the neutral current and its comparison with the telluric current in Japan
CP-5	K.K. Abdul Azeez, C. Manoj, K. Veraswamy, T. Harinarayana	Co-seismic EM signals in magnetotelluric measurement – a case study during Bhuj earthquake (26 <sup>th</sup> January 2001), India
	1630-1700 1700-1800	<b>TEA BREAK</b> <b>Session II : Continued (Chairman: H.N. Srivastava)</b>
CP-6	K. Haritha, T. Srinivasulu M.V.C. Sarma, G. Virupakshi, T. Harinarayana	Monitoring of magnetotelluric signals to study the precursory phenomena for the seismic activity in Koyna region, Western India
CP-7	Hirok Chaudhari, N.K. Das R.K. Bhandari, D.Ghose, Prasant Sen, B.Sinha	Radon and Helium fluctuations prior to seismic events in thermal spring gas
CP-8	W. M. Boerner, S.J. Anderson	How infrasonic imaging, HF –surface radar & HF-OTHER and GPS technology can favorably be implemented for detecting the on-set of Tsunamis and the real –time imaging of its spreading
CP-9	J. Zlotnicki, Y. Sasai, J.P. Toutain, E.U. Villacorte, A. Bernard, J.T. Punongbayan, H.Hase, Sabit, T. Nagao	Taal volcano (Philippines): Gearing toward a new eruption? Combined land based self –potential, magnetic, ground temperature and CO <sub>2</sub> soil degassing surveys with the Cater Lake temperature monitored by satellite imagery
CP-10	Rajesh Singh	On the observations of some unique VLF/ELF emissions
	2000-2200	<b>Sponsored Dinner</b>

**Allotted Time: SP=30 Min., IP= 20 Min., CP=12 Min.**

**Date: 21 November, 2006 (Tuesday)**

0900-1100

Session III: Ground and Satellite based monitoring of  
Electromagnetic precursors of Earthquakes  
(Chairman: MJS Johnston,)

**Paper ID**

**Speaker**

**Title**

SP-4	M. Hayakawa	Seismo – electromagnetic phenomena: Recent results
SP-5	M. Parrot	Ionospheric perturbations in relation with seismic activities as determined from the satellite DEMETER
IP-5	K. Hattori, H. Ishikawa, M. Nishihashi, C. Yoshino, K. Yumoto	Possible Seismo-Electromagnetic phenomena associated with 2004 Sumatra-Andaman Earthquake
IP-6	S.Uyeda	On natural time analysis
IP-7	R.P. Singh	Potentiality of multi sensor satellites in monitoring earthquake precursors and seismically active regions of India

1100-1130

Tea Break

1130-1330

SESSION III: Continued (Chairman: T. Nagao)

IP-8	J. Zlotnicki, G. Vargemezis, J.L. Le Mouel, P. Yvetot, F. Fauquet, P. Menny	Ground-based electromagnetic studies related to active faults in Demeter mission; Application to Corinth rift zone (Greece)
CP-11	T. Mogi, M. Takada, T. Moriya, Y. Enomoto, H. Hashimoto, N. Shirai	Some EM anomalies associated with the 2003 Tokachi-oki earthquake
CP-12	M. Hayakawa, K. Ohta, A.P. Nickelenko	Anomalous effect in Schumann resonance phenomena observed in Japan, possibly associated with the Chi-Chi earthquake in Taiwan
CP-13	K. Ohta, T. Horie, M. Hayakawa, S. Mayakawa, Y. Ida	Electromagnetic precursors to the Indonesian (Sumatra) earthquake
CP-14	F. Dudkin, V. Korepanov, A. De Satis	Active EM sounding of crustal pre EQ deformations
CP-15	M.Kamogawa,S.Uyeda	Recent progress of pre seismic LAI coupling
CP-16	Kalpana Malhotra, A. Srivastav, A.K. Gwal, M. Parrot	Ionospheric perturbations observed by micro-satellite
CP-17	V. Korepanov, G. Lizunov, Yury Yampolsky	Possible mechanism of ionospheric earthquake precursors
CP-18	V.G. Kolvankar	Semi- diurnal RF emission at time intervals equally spaced from the local noon time: A promising earthquake precursor

1330-1430

LUNCH

**Allotted Time: SP=30 Min., IP= 20 Min., CP=12 Min.**

1430-1530

Session III: Continued (Chairman: K. Ohta)

**Paper ID**

**Speaker**

**Title**

CP-19	P.A.Varotsos, N.V.Sarlis E.S.Skordas,M.S.Lazaridou	Recent experimentation towards understanding the properties of seismic electric signals (VAN method)
CP-20	A.K. Gwal, S. Bhattacharya, S. Sarkar	Study of ULF/ELF perturbations associated with earthquakes
CP-21	A.K. Sharma, R.N. Haridas, A.V. Patil	Study of Ultra Low Frequency (ULF) magnetic field observations associated with earthquakes by using induction coil magnetometer at Kolhapur (16.40°N, 74.15°E)
CP-22	P.Varotsos, S.Uyeda	Comments on the published electrical observations associated with the long-awaited 28 September 2004 M 6.0 Parkfield earthquake
CP-23	Vinod Kushwah, Vikram Singh, Birbal Singh	ULF amplitude anomalies associated with the recent Pakistan earthquake of 8 October, 2005
CP-24	A.R.W. Hughes, A.B. Collier	Seasonal and Diurnal variations of lightning activity over South Africa

1530-1630

POSTER SESSION

1630-1700

TEA

1800-2000

Cultural Programme

2000-2200

Sponsored Dinner

**Date: 22 November, 2006 (Wednesday)**

0900-1100

Session IV: Recent advancements in Space Science studies (Chairman: D.R. Lakshmi)

**Paper ID**

**Speaker**

**Title**

IP-9	A.C. Das	Space Weather
IP-10	A. Bhattacharyya	Irregularities in the equatorial and low latitude ionosphere
CP-25	A.K. Singh, R.P. Patel, R.P. Singh	Observational and modeling of low-latitude ionospheric irregularities
CP-26	Kalpana Maski, S.K. Vijay, A.Singh, A.K. Gwal	Morphological study of amplitude scintillation at Bhopal
CP-27	R. Prakash, B.M. Agrawal, D.D. Gupta, Pawan Chauhan	ELF Hiss generation at lower edge of inner radiation belt

**Allotted Time: SP=30 Min., IP= 20 Min., CP=12 Min.**

CP-28	PVS Rama Rao, S.T. Ram, K. Niranjana, DSSVVD. Prasad	The influence of pre ExB drifts and the Geo-magnetic storms
CP-29	A.K. Sehgal, P.Gupta	Contingency plans and response techniques for oil spills to combat marine pollution
CP-30	A. Pokhriyal, S. Pandey	TSP Solution: A neural network approach refined with simulated annealing
CP-31	Birbal Singh, Vikram Singh	Trimpi phenomenon observed at low latitude

1100-1130  
1130-1330

TEA BREAK  
Session V: Ionospheric perturbation due to earthquake  
(Chairman: B.M. Reddy)

**Paper ID**

**Speaker**

**Title**

IP-11	D.R. Lakshmi, B.M. Reddy	On the Credibility of ionospheric departure as earthquake precursor
IP-12	H.Chandra	Ionospheric variability at low latitude in context of seismic effects
IP-13	Minakshi Devi	Methodologies in search for short term earthquake precursor through EM carriers in lithosphere- atmosphere –ionosphere-magnetosphere coupled system
CP-32	OP Singh, Birbal Singh	Simultaneous study of foEs and foF2 anomalies during earthquakes
CP-33	Som Sharma, H. Chandra	Ionospheric perturbations associated with the Bhuj earthquake of 26 January 2001 and 07 March 2006
CP34	D.K. Sharma, R. Chand, M. Israil, J. Rai	Signature of seismic activities in the F2 region ionosphere
CP35	Vishal Chauhan, OP Singh	Preliminary results of TEC Monitoring at Agra

1330-1430  
1430-1530

LUNCH  
Session V: Continued (Chairman: A.C. Das)

**Paper ID**

**Speaker**

**Title**

CP-36	P.P. Pathak, Megha Gupta	Possible mechanism affecting the atmosphere by seismic activity
CP-37	Vikram Singh, B. Singh, V. Kushwah	Ground and satellite based monitoring of VLF/ULF amplitude anomalies related to the great Indonesian earthquakes of 26 December, 2004 (tsunami) and 28 March, 2005
CP-38	R.M. Das, R.S. Dabas, K. Sharma, K.G. M. Pillai, H.N. Dutta, S.C. Garg	Ionospheric perturbations observed over Delhi caused by some of the recent major earthquakes
CP-39	Birbal Singh, V. Singh, V. Kushwah, R. V.S.Chauhan	On the identification of seismogenic ULF emission
CP-40	Jayanta K. Jena P.K. Verma	GIS mapping for active tectonics in parts of South-East Rajasthan

**Allotted Time: SP=30 Min., IP= 20 Min., CP=12 Min.**

1530-1630 POSTER SESSION (POSTER No. 1-12)  
 1630-1700 Tea Break  
 1700-1800 Concluding session (Chairman: B.M. Reddy, Chief guest : M. Hayakawa)  
 1830- 2030 EMSEV Working group meeting

**23November, 2006 (Thursday)**

**Activities**

- ✓ Contributory excursion trip around Agra monuments.
- ✓ Inauguration of new Seismo-Electromagnetic laboratory in the Faculty of Engineering, R.B.S. College (Bichpuri Campus), Agra by **Prof. M. Hayakawa**

**Poster Presentation: 21 November, 2006**

**(Observer: Prof. H. Chandra)**

Note: Authors are requested to put their papers before morning session between 08:30-09:00 hrs and be present during the poster session.

<b><u>Paper No.</u></b>	<b><u>Author</u></b>	<b><u>Title</u></b>
P-1	R. Kumar, B.P. Tyagi S.P. Sharma, M.L. Sharma	Estimation of conditional probabilities for earthquakes
P-2	P.P. Pathak, N. Choudhary	Cause of animal unrest before Earthquake
P-3	S. Bhattacharya, S. Sarkar, A.K. Gwal	Enhancement in lightning activities observed before earthquakes
P-4	A. Tyagi, M.L. Sharma P.P. Pathak	Prediction of seismicity cycles using artificial neural network
P-5	K. Kant, S.K. Chakarvarti	Alpha active pollutants as a precursor of seismic activity: A review
P-6	A.K. Singh, V. Kushwah B. Singh	Observation of fourth harmonic of Schumann Resonance at Agra possible related with earthquake
P-7	A.K. Singh	Wave phenomena in upper atmosphere associated with earthquakes- A statistical analysis
P-8	A. Srivastav, K. Mahlotra A.K. Gwal	Low frequency electric burst signature observed in DEMETER satellite
P-9	S. Bhadauria, B. Singh B.S. Kushwah, A. Mishra, Ratnika Varshney	Earthquake prediction by trees: An innovative approach
P-10	M. Devi, A.K. Barbara, B. Sarma, D. Choudhary, A.H. Depueva, Yu. Ya. Ruzhin	Perturbations at the lower and upper atmosphere observed prior to an earthquake at low latitude station through GPS and LIDAR
P-11	Farshed H. Karimov	Separation of overlapped tectonomagnetic effects
P-12	S. Mayakawa, T. Yamauchi, M. Hayakawa	On the statistical correlation between the ionosphere and seismic activities

**Poster Presentation: 22 November, 2006**  
**(Observer: Prof. Minakshi Devi)**

Note: Authors are requested to put their papers before morning session between 08:30-09:00 hrs and be present during the poster session.

<b><u>Paper No.</u></b>	<b><u>Author</u></b>	<b><u>Title</u></b>
P-13	PVS Rama Rao, S.G. Krishna K. Niranjana, DSVVD Prasad	Study of Spatial and temporal characteristics of L band scintillations
P-14	N. Upadhyay, J.P. Saini	Map algorithm of Turbo code
P-15	P.N. Gupta	Propagation characteristics in the microwave frequency range through a semiconductor medium using transferred-electron mechanism
P-16	S. Kumar, Simranjit Kaur	Manifestation of geomagnetic storms during 1996-2005
P-17	S.K. Vijay, S. Jain, K. Maski A.K. Gwal	Nighttime variation on TEC at Bhopal
P-18	K.K. Singh, J. Singh, B. Kumar, Lalmani, S.K. Sharma, R.P. Singh	Whistler doublets and triplets recorded simultaneously at Jammu ( $L=1.17$ )
P-19	K.K. Singh, R.P. Singh, J. Singh Lalmani	Observation of plasmapheric quasi-period VLF noise forms (Hisslers) at low latitude Indian ground station Jammu
P-20	A.K. Singh, R.Singh, K.Singh R.P. Singh	An explanation of observation of pulsing hiss at low latitude
P-21	R.K. Jain, B.S. Kushwah, R. Verma, B.D. Gupta	Air pollution in cast iron foundries and eco friendly melting techniques
P-22	Shivalika Sarkar, S. Bhattacharya, A.K. Gwal	Ionospheric disturbances associated with strong earthquakes
P-23	Subba Rao P B V, B.M. Pathan, D.M. Daga, Rajesh Singh, S.H. Mahajan	Probable VLF signals related to earthquakes: Examples from Uttarkashi region
P-24	R.P Singh, Vikram Singh B. Singh	Geopotential anomalies during moderate earthquakes.
P-25	V.Gupta, A.Parashar, V.Singh V. Kushwah, B. Singh	Automation of Whistler Analysis