

ANNUAL REPORT
(April 2006-March2007)

Department Name: School of Telemedicine & Biomedical Informatics

Telemedicine Programme Committee

Prof. A.K. Mahapatra, Director	Chairman
Prof. R.K. Sharma, Dean	Member
Prof. Sita Naik	Member
Prof. Ramnath Misra	Member
Prof. R.K. Gupta	Member
Prof. S.K.Mishra	Member Secretary & Nodal Officer

Project Staff

Name	Designation
Mrs Lily Kapoor	Project Co-ordinator
Mr Repu Daman Chand	Network Engineer
Mr Sandeep Singh	Project Assistant
Mr Indra Pratap Singh	Project Assistant
Mr Varad Pradhan	Project Assistant

Departmental Activities

Services

a. Tele-consultation :

We have been providing tele-consultation using telemedicine technology to two medical colleges in Orissa, two Base Hospitals at Almora and Srinagar in Uttaranchal and District Hospital, Raibareli in UP under Orissa, Uttaranchal and Raibareli Telemedicine Projects respectively . This year we provided tele-consultation to 70 patients in Orissa , 51 patients in Uttaranchal and 8 patients in Raibareli Telemedicine Projects. The departments which participated were Radiology, Cardiology, Neurosurgery, Endocrine Surgery, Nuclear Medicine, Rheumatology, Neurology, Surgical Gastroenterology and Radiotherapy.

b. Tele-follow up :

Departments of Rheumatology, Endocrine Surgery & Nuclear Medicine have been providing tele-follow up services to the patients of Orissa through telemedicine technology. This year 70 patients of Orissa benefited from this service.

Teaching and Training

a. Tele-education activities:

- Tele-education is a type of distance education in which learners and the teachers are not at the same site. We provide distance education to the postgraduate students of three medical colleges in Orissa through VSAT, the doctors of Base hospitals in Almora and Srinagar via ISDN

and District Hospital, Raibareli through fiber optic cable network. A total of **121 Sessions** were held in this year.

- To share the knowledge and experience, the doctors of the departments of Endocrinology, Endocrine Surgery, Gastroenterology and Surgical Gastroenterology were connected to AIMS, Kochi and department of Endocrine Surgery with CMC, Vellore. Department of Urology networked with AIIMS Delhi and PGIMER, Chandigarh through point to multipoint connectivity. Department of Endocrine Surgery and Surgical Gastroenterology also got connected to Ranguel University, France through ISDN. A total of **40 sessions** were performed held for such activities.

c. Tele-CPC sessions :

In March 2007, we started receiving a weekly session of Clinico-pathology conference held at PGIMER, Chandigarh. We have received **6 sessions** so far.

d. Tele-CGR sessions :

From March 2007, the weekly CGR program conducted by the various departments of SGPGIMS is being transmitted to Pandit Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak . We have transmitted **8 CGR** sessions so far.

e. Tele-CMEs :

Telemedicine technology was also used to transmit the proceedings of conferences, workshops and continuing medical education programme organized by various departments of SGPGIMS, to other medical colleges and institutions in India and to receive lectures from abroad.

Sl No	Name of Tele-CME Program	Year	Organizing Departments	Networked node
1.	3rd Annual Conference of Indian Thyroid Society and International symposium on recent advances in management of thyroid disorders	March 2006	Nuclear Medicine	SCB Medical College, Cuttack, Orissa and Holy Family Hospital, Rawalpindi, Pakistan
2.	XIV Surgical Gastroenterology Week	March 2006	Surgical Gastroenterology	AIMS, Kochi
3.	2 nd Diabetics Footcare Workshop	November 2006	Endocrine Surgery	SCB Medical College, Cuttack
4.	2nd SGPGI Breast Course	November 2006	Endocrine Surgery	SCB Medical College, Cuttack
5.	Workshop on Cancer Pain Management vis-à-vis oral Morphine	March 2007	Cancer Aid Society	SCB Medical College, Cuttack

Honours and Awards

Faculty Name – Prof S K Mishra

1. Member, National Task Force on Telemedicine, Ministry of Health & FW, Govt. of India: 2005 - continuing

2. Invited as Expert in the First Coordinating Meeting on Research Studies on eHealth for Healthcare Delivery organized by the Department of Essential Health Technologies of WHO at Schenzen, China - 24-28th, June 2006
3. Invited as e-Health Expert to the Expert Meeting on Telemedicine in the Reconstruction of Afghanistan through Telemedicine Technology under India/ USA/ UNOOSA (United Nations Office for Open space Affairs), held at Amritha Institute of Medical Sciences, Kochi, India, Vienna 29-31 August 2006
4. Mission on developing e-Health Plan for Nepal as ITU e-health expert, Geneva – September 2006
5. Asia Pacific Telecommunity (APT) Telemedicine Workshop, Bangkok - Expert on Telemedicine (2007)
6. WHO e-Health expert for Maldives (2007)

Research Projects

Completed Projects:

Faculty Name – Prof S K Mishra

1. Name of the Project : Uttaranchal Telemedicine Network Project (pilot phase 2004-07 completed in March, the same is extended for one more year)
Funding : Uttaranchal State Government
2. Raibareli Telemedicine Network Project
Funding : Gas Authority India Limited under CSR (Pilot phase of one year completed)

Ongoing Projects

Faculty Name- Prof S K Mishra

1. Orissa Telemedicine Network Project
Funding : Indian Space Research Organisation
2. Uttaranchal Telemedicine Network Project (extension phase of pilot)
Funding : Uttaranchal State Government
3. UP Tele-radiotherapy Project
Funding : Department of Science Technology, Govt. of India
4. National Resource Center for Telemedicine & Biomedical Informatics
Funding : Department of Information Technology, Ministry of Communication & IT, Govt. of India

Faculty Name – Prof. Sita Naik

- 1 Establishment of Bio-informatics infrastructure facility (BIF) for the promotion of biology teaching through bioinformatics (BTBI) under BTIS net program
Funding: Department of Biotechnology, Govt. of India
- 1 Biomedical Informatics Center of ICMR
Funding: Indian Council of Medical Research

Publications

Original Articles

International

1. Kapoor L, Basnet R, Chand RD, Singh S, Pradhan V, Joshi P, Semwal M, Durgapal, Negi KS, Shah R, Mishra SK. Analysis of Telemedicine Project deployed in Sub-Himalayan Region in the Indian state of Uttaranchal. Journal of eHealth Technology and Application. 2007 June;5(2):169-73
2. Mahapatra AK, Mishra SK. "Bridging the Knowledge and Skill Gap in Healthcare: SGPGIMS, Lucknow, India Initiatives" Journal of eHealth Technology and Application. 2007 June;5(2):67-69
3. Pradeep PV, Mishra A, Mohanty BN, Mahapatra KC, Agarwal G, Mishra SK. Reinforcement of Endocrine Surgery Training: Impact of Telemedicine Technology in a developing country context. World J Surg. DOI 10.1007/s00268-007-9108-1

National

Kapoor L, Basnet R, Pradeep PV, Mishra A, Mishra S. Integrating Telemedicine in Surgical Applications, CSI Communications 2007 Feb; 30(11): 17-20.

Case Reports and Correspondence

Pradeep PV, Mishra SK, Vaidyanathan S, Nair CG, Ramalingam K, Basnet R. Telementoring in endocrine surgery: preliminary Indian experience. Telemed J E Health 2006;12(1):73-7.

Conferences Organised

- a. Healthcom2006, 8th International conference on e-Health Networking, Application and Services, 17-19 August 2006, New Delhi
- b. 2nd National Conference of Telemedicine Society of India, 20-22, August 2006, New Delhi.
- c. Global Convention and Exposition on Telemedicine & e-Health – 17-22, August 2006, New Delhi

Conference Presentation

International

Prof. S.K.Mishra

- 1) Current Telemedicine Infrastructure, Network, Applications in India, S K Mishra, Lily Kapoor, Rajesh Basnet, Kartar Singh; Proceedings of 8th International Conference on e-Health Networking, Applications and Services, Healthcom 2006, ISBN: 1-4244-9704-5 © 2006 IEEE, P 46-49, 17-19th August 2006, New Delhi, India
- 2) Design and Implementation of Telemedicine Network in a Sub Himalayan State of India, Lily Kapoor, Rajesh Basnet, Repu Daman Chand, Sandeep

- Singh, Pankaj Joshi, Maneesh Semwal, Durgapal, K S Negi, Ragesh Shah, S K Mishra, Kartar Singh; Proceedings of 8th International Conference on e-Health Networking, Applications and Services, Healthcom 2006, ISBN: 1-4244-9704-5 © 2006 IEEE, P78-83 17-19th August 2006, New Delhi, India
- 3) Surgical sub-specialty growth in Developing country: Impact of Telemedicine technology; A Case study with Endocrine Surgery, Pradeep PV, Anjali Mishra, Lily Kapoor, Rajesh Basnet, Gaurav Agarwal, Amit Agarwal, AK Verma, S K Mishra; Proceedings of 8th International Conference on e-Health Networking, Applications and Services, Healthcom 2006, ISBN: 1-4244-9704-5 © 2006 IEEE, P78-83, 17-19th August 2006, New Delhi, India
 - 4) Current e-Health infrastructure, network & application in India, S K Mishra; FICCI, 9th December 2006, New Delhi, India
 - 5) National Network of Medical Colleges of India, Bringing Europe's eElectronic Infrastructures to Expanding Frontiers (BELIEF), S K Mishra; 14-15th December 2006, New Delhi, India
 - 6) Developing Core Competence in Telemedicine & e-health – SGPGI, Lucknow Initiative, S K Mishra; 5th APT, 6-9th February 2007, Chiangmai, Thailand
 - 7) Current Telemedicine Infrastructure, Network, Applications in India, S K Mishra; 5th APT, 6-9th February 2007, Chiangmai, Thailand
 - 8) Short term analysis of impact of telemedicine technology enabled follow-up of surgical patients, S K Mishra; 5th APT, 6-9th February 2007, Chiangmai, Thailand

National

1. Telemedicine through e-Governance platform, S K Mishra; Paradigm Shift Through e-Governance, Computer Society of India, Lucknow, 5th March 2006
2. Current Practice and Future Scope of e health in India, S K Mishra; e-Health Conference, Pune, 11-12th March 2006
3. National Seminar Empowering Rural India through ICT - Healthcare, S K Mishra; National Seminar Empowering Rural India through ICT, Amethi, 15th March 2006
4. Telemedicine practice in remote hilly region – Uttaranchal Case Study, Kartar Singh; National Seminar Empowering Rural India through ICT, Amethi, 15th March 2006
5. High Performance Computing (HPC) for Research Synthesis of Existing Network to compliment Onconet, S K Mishra; Workshop on OncoNET India, 4-5, May 2006, Mumbai
6. Problems in Implementation of Telemedicine Programme, Lily Kapoor, Rajesh Basnet, Ripu Daman Chand, Sandeep Singh, S K Mishra; 2nd National Conference of Telemedicine Society of India, 20-22nd August 2006, New Delhi, India
7. Tele Follow-Up of Thyroidectomy And Parathyroidectomy Patients: Preliminary Experience, Anjali Mishra, Pradeep PV, Lily Kapoor, Rajesh Basnet, Chinmaya Satpathy, S K Mishra; 2nd National Conference of Telemedicine Society of India, 20-22nd August 2006, New Delhi, India
8. Application of Telepathology in India, Manoj Jain, Vinita Agarwal, Lily Kapoor, S K Mishra, R K Gupta; 2nd National Conference of Telemedicine Society of India, 20-22nd August 2006, New Delhi, India

9. Evaluation of e-health technology impact on tertiary care hospital services, Hem Chandra, K. Jamaluddin, Leela Masih, Kasturi Agnihotri, S K Mishra; 2nd National Conference of Telemedicine Society of India, 20-22nd August 2006, New Delhi, India
10. A study of Tele education programe of SGPGIMS, Leela Masih, Neelam Verma, K. Jamaluddin, Hem Chandra, J C Durgapal, K S Negi, S K Mishra; 2nd National Conference of Telemedicine Society of India 20-22nd August 2006, New Delhi, India
11. Good Practice of Telemedicine, B N Mohanty, S K Mishra; 20-22nd August 2006, 2nd National Conference of Telemedicine Society of India New Delhi, India
12. Orissa Telemedicine Network-A 4 years Review, BN Mohanty, B.K.Das, B.K.Kuanr, R M Mohanty, C R Sarangi, A K Mohanty, D Patel, R Mangual, S K Mishra; 20-22nd August 2006, 2nd National Conference of Telemedicine Society of India, New Delhi, India
13. Telemedicine & medical profession & medical education, S K Mishra; Academic oration 5th September 2006, Ahmedabad, India
14. Grid Computing in Healthcare, Teaching & Research, S K Mishra; tele-conferencing, 25th November 2006, MEDETEL'06, Kochi, India
15. Telemedicine Application in Surgery : SGPGIMS Experience, S K Mishra; ICHMIT-2006, 18-20th December2006, Kharagpur, India
16. Current e-Health infrastructure, network & application in India, S K Mishra; FICCI, 9th December 2006, New Delhi
17. Practical Guidelines on Design Implementation and Evaluation of State wide Telemedicine Network, S K Mishra; Orissa Telemedicine Workshop-2007, 18th January 2007, Cuttack, India
18. Grid Computing in Healthcare, Teaching & Research, S K Mishra; Computer Society of India 17-18th February 2007,Cuttack, India
19. SGPGIMS Contribution to e-Health, S K Mishra; Seventh International Conference on e-Health: Future Diagnostics for unreached, Vidya Pratishtan's Institute of Information Technology (VIIT), 17th March 2007, Baramati, Maharashtra

Future Plans

1. Starting Structured training programme in the School of Telemedicine Biomedical Informatics.
2. Starting various resource laboratories for Research and Development programme in the National Resource Center for Telemedicine & Biomedical Informatics.
3. Industry collaboration.