



# MIRSAC Newsletter

Mizoram Remote Sensing Application Centre  
(An Autonomous Govt. Institution under Science & Technology, Planning Department, Govt. of Mizoram)

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Shri. Arvind Ray  
Chairman  
MIRSAC Gov. Body



Dr. C. Vanlalramsanga  
Vice Chairman  
MIRSAC Gov. Body

## Governing Body of MIRSAC

- Chairman : Chief Secretary  
Govt. of Mizoram
- Vice Chairman : Secretary  
Planning & Prog.  
Implementation Dept.  
Govt. of Mizoram
- Member Secretary : Chief Scientific Officer  
Dte. Science & Technology
- Members : 16 members from various  
Depts. of the State, viz.,  
Planning & Prog.  
Implementation, Finance,  
Environment & Forest,  
PWD, P&E, UD&PA, DM&R,  
Irrigation & Water Resources,  
Agriculture (Crop Husbandry),  
Horticulture, PHED, Geology  
& Mineral Resources, Land  
Resources, Soil & Water  
Conservation, Rural Dev.,  
Land Revenue & Settlement,  
& Sericulture.

## MIRSAC Editors

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## MIRSAC RECEIVES NORTH EAST TECHNOLOGY SABHA AWARD 2018

The Mizoram Remote Sensing Application Centre (MIRSAC), Directorate of Science & Technology, Govt. of Mizoram received the coveted North East Technology Sabha Award 2018 under the category of Enterprise Mobility at an Award function organised by Express Computers, Indian Express Group held at Radisson Blu hotel, Guwahati on 24<sup>th</sup> November, 2018.

The Technology Sabha 2018 was organized by Computer Express, Indian Express Group in collaboration with Govt. of Assam, Govt of India and other 17 international and national corporate partners aimed at adoption of new cutting edge technology to meet the need of Govt. in collaboration with corporate sector in all the North Eastern States. The North East edition of Technology Sabha was a two-day residential conference (23-24 November, Guwahati) that explores new trends and innovations in creating a digital ecosystem for accelerating e-Governance initiatives.



The conference featured thought leaders from various government organizations who have undertaken some of the best Government to Government, Government to Citizen and Government to Business initiatives. The theme for the North East edition of Technology Sabha was "Digital North East - Connecting the Unconnected". The NE Technology Sabha Awards 2018 were given away to Government department/agency/institution in North East India that demonstrates innovative use of a particular technology or a combination of technologies for distinct benefits to the stakeholders.

The NE Technology Award 2018 was conferred for the Centre's project on "Digital 3D Terrain mapping & modelling of 8 districts of Mizoram" which was received by Dr. R.K.Lallianthanga, Chief Scientific Officer & Member Secretary, MIRSAC & Robert Lalchhanhima Sailo, Senior Scientist, MIRSAC at the Award function on 24<sup>th</sup> November, 2018.





## From Editor's desk



We are looking at an era of digital transformation and integration of technology is almost all walks of life, while the obvious fact is that we still have a lot to harness in terms of the pragmatic use of these technology-driven products.

Geospatial science in its effort to prove itself of being the 'Science of where' contributes a chunk of this technological demand where in society is accepting its intervention in decision making and assist in simplifying everyday tasks. Keeping its use in governance, the technology has penetrated the social forum and has even become at reach for the common man to use it for his daily activities. We may not be fully aware of this intervention but it does exist in the gadgets we use - some way or the other, the science is at work behind the scenes.

It has been 3 decades now, since MIRSAC had these visions of Geospatial science being a constituent part of the Government and the society. Realizing the potential of Remote sensing & GIS in existing activities as well as being a beacon of inclusive future growth will continue to be the driving force for which the Centre was established.

## AutoMet. Station (with Lighting Detector) installed at MIRSAC



As an initiative to provide better weather forecast services, an Automatic Weather Station (along with Lightning detector) was installed at MIRSAC, Dte. of Science & Technology on 22<sup>nd</sup> November, 2018 by Earth Network Company. The weather station besides being able to record general climate data such as temperature, precipitation & humidity, it can also provide a 10 days weather forecast as well as hourly forecast. In addition, data for wind velocity, pressure & almanac is also recorded. Daily weather data is also recorded every hour and the data is sent online to the Earth Network's server. These data are accessible for users through the web portal of Earth Networks. The add-on Lightning detector has the ability to sense/detect instances of lightening occurrences within a 4000 sqkm radius from the station.

## GIS BASED VILLAGE/LOCAL PROFILE MAPPING PROJECT

A handover programme on GIS based Village/Local Profile Mapping Project was organized at DST Conference room, Directorate of Science & Technology on 14<sup>th</sup> August, 2018. The function was chaired by Dr. Lalnunsiamia Colney, Principal Scientist, MIRSAC and presentation about the project was given by Pu R.Lalfamkima, Scientist. Data along with computer system prepared and procured under the project was handed over to Pu Lalchuanawma Hrahse, Director, Dte. of Eco. & Stat., Govt. of Mizoram by Dr. R.K.Lallianthanga, CSO & Member Secy., MIRSAC at the function. The officials from Dte. of Eco. & Stats. present at the function appreciated the efforts given by Scientists of MIRSAC for the project and also envisaged that the spatial data incorporated into the systems would be helpful during planning and work execution of the Department. The project provides location based information of all villages in Mizoram, including their demographic and necessary attributes that will assist in planning and development activities.



PC system hand over to Director, Dte. of Economics & Statistics

## HRVA ATLAS RELEASED FOR THREE DISTRICT HEADQUARTERS

A short function for Release of Hazard Risk & Vulnerability Atlas for 3 district Hqrs. - Aizawl City, Mamit & Serchhip towns was organised at Conference room of Directorate of Science & Technology, Mizoram Secretariat Complex, Aizawl on 29<sup>th</sup> August, 2018. The programme was chaired by Dr.R.K.Lallianthanga, Chief Scientific Officer & Member Secy. The function was graced by Pu Lalsawta, Hon'ble Minister, Planning (Science & Technology), Govt. of Mizoram as the Chief Guest, and Mr. A.D.Kharsing, Extension Officer (Seismology), NEC Shillong as the Guest of Honor. A brief presentation about the project was given by Pu Z.D.Laltanpuia, Sr.Scientist. This was followed by the release of the 3 district Atlas by the Chief Guest. The Minister also handed over the copies of the Atlas (Hard copy) to the representatives of 3 District Commissioner, and the soft copies of the Atlas to officers of concerned Departments - DM&R, PWD, UD&PA, Geology & Mineral Resources, AMC, Land Revenue & Settlement.



Atlas released by Pu.Lalsawta, Hon'ble Minister, Planning (S&T)

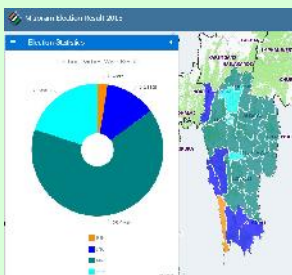




## MIZORAM ELECTION e-ATLAS LAUNCHED

With the main focus to promote use of space technology for effective planning, monitoring and management of the Mizoram Legislative Assembly Elections 2018, the Centre in collaboration with North Eastern Space Applications Centre (NESAC) & Directorate of Election, Govt. of Mizoram has taken up an ambitious project on design and implementation of the Mizoram Election e-Atlas.

The e-Atlas contents after receiving comments & suggestions for improvement from Chief Electoral Officer & Deputy Commissioner, Aizawl at a Preview meeting on 3<sup>rd</sup> October 2018, was finally launched by Shri. Arvind Ray, Chief Secretary, Govt. of Mizoram & Chairman, MIRSAC on 18<sup>th</sup> October 2018 at Chief Secretary Conference room, Mizoram Secretariat Complex, Aizawl. The e-Atlas launch function was attended by Deputy Commissioners, Officers from State Election Department and Directorate of Science & Technology. A brief presentation about the project and demonstration of the Election e-Atlas Web Portal was given by Pu R.Lalfamkima, Scientist, MIRSAC & Shri Nilay Nishant, Scientist, NESAC.



The Mizoram Election e-Atlas is designed as a GIS based web portal with a set of map-based modules and embodies a flexible architecture of database management system to enable a platform for updating election related data for management of the election processes by the Election Department. The portal also provides a public online map-platform (Dashboard) for users to view spatial information about polling stations, voters distribution, minimum assured facilities, etc with options to filter data in terms of districts, constituencies and sectors. The portal's Live Dashboard was also used to view spatial distribution of Live Vote percentage of polling stations during the Election day as well as Live Election Result updates on the Vote counting day.

### ON-GOING PROJECTS

#### **1. Hazard, Risk & Vulnerability Analysis for 8 district Hqrs in Mizoram**

The project is funded by NEC, Shillong and executed by the Centre to map and analyze various aspects of natural hazards in the state. Map compositions and preparation of HRVA Atlas for the remaining five District hqrs. i.e, Kolasib, Champhai, Lunglei, Lawngtlai & Siaha is being taken up. Atlas for Aizawl city, Kolasib & Mamit towns have been released.

#### **2. Monitoring of IWMP activities using Geospatial tools**

The project involves mapping and monitoring of land changes due to implementation of IWMP activities. Land Use / Land cover mapping and change detection withing selected watershed areas of Serchhip, Mamit, Kolasib and Aizawl district is being executed. Data will be subjected to quality check and incorporation into BHUVAN.

#### **3. CHAMAN Project - Site Suitability study for Dragon fruit in Aizawl & Serchhip District**

This project is funded by Mahanalobis National Crop Forecast Centre (MNCFC), Dept. of Agriculture, Cooperation & Farmers Welfare, Govt. of India. Additional district - Serchhip has been selected for site suitability analysis and data required for GIS analysis is being collected.

#### **4. North East Spatial Data Repository (NeSDR)**

The project is funded and executed in collaboration with NESAC, Dept. of Space & Ministry of DONER with an objective to bring spatial data on a unified platform to promote the use of space technology and to be used for various developmental activities in the northeast. Spatial data correction and standardization is being carried out.

#### **5. Fostering Climate resilient Upland farming System (FOCUS) project**

The project is funded by Society for Climate Resilient Agriculture in Mizoram (SCRAM) through International Fund for Agriculture Development (UN-IFAD) and executed in collaboration with 4 line State Departments - Agriculture Dept., Horticulture Dept., AH&Vety Dept., & Land Resources, Soil & Water Conservation Dept. Remote Sensing & GIS inputs required for this project i.e, Land use maps and Crop suitability analysis for jhum improvement will be carried out by the Centre.

### Employee's Space

\* Pu Lalramdina, Scientist is currently attending the 3 months Remote Sensing & GIS course at NRSC, Hyderabad. We wish him all the best and may his knowledge gained be a boost for achieving the Centre's goals.

\* The Officers & Staff of MIRSAC wishes all its readers a Merry Christmas & a prosperous New Year.



## NEWS & ACTIVITIES

\* *Pu R.Lalfamkima, Scientist & Pi Vanlalmuansangi, Scientist were detailed to attend project training under IWMP Monitoring project at NESAC, Umiam from 27<sup>th</sup> - 31<sup>st</sup> August, 2018.*

\* *Pu C.Vanlalengkima, Scientist was detailed to attend a 'One day Workshop for Distribution of GAGAN enabled Dongle and Smartphone under NLCPR' at NEC, Shillong on 3<sup>rd</sup> September, 2018.*

\* *A Preview meeting for Election e-Atlas was organized at the Conference room of Directorate of Science & Technology, Aizawl at 1 p.m on 3<sup>rd</sup> October, 2018. The Chief Electoral Officer, Jt.CEO & Deputy Commissioner, Aizawl were present at the meeting who gave suggestions for further improvement of the e-Atlas.*

\* *The Centre participated in the Exhibition of 2<sup>nd</sup> Mizoram Science Congress, 2018 organized at Multipurpose Hall of Pachhunga University College, Aizawl on 4<sup>th</sup> October, 2018.*

\* *Pu R.Lalfamkima, Scientist was detailed for project work at NESAC, Umiam under the Election e-Atlas project from 6<sup>th</sup> - 12<sup>th</sup> October, 2018.*

\* *Pu Robert Lalchhanhima Sailo, Senior Scientist attended the Initiation meeting of CHAMAN project (2nd Phase) at NESAC, Umiam on 12<sup>th</sup> October, 2018.*

\* *Pu C.Vanlalengkima, Scientist was detailed to conduct training on 'Water pollution Inventory using GPS' under the Green Skill Development Programme (GSDP) at Mizoram Pollution Control Board (MPCB), Aizawl from 17<sup>th</sup> October - 2<sup>nd</sup> November, 2018.*

\* *Pu Robert Lalchhanhima Sailo, Senior Scientist attended the Release function of Atlas prepared for Sericulture Development Project & 'Workshop on Geo-tagging of Assets of CSB for NER' at Assam Administrative Staff College, Guwahati from 22<sup>nd</sup> - 23<sup>rd</sup> October, 2018.*

\* *Pu R.Lalfamkima, Scientist attended the Training programme (BootCamp) on WebGIS & Mobile Apps Development under NeSDR project at NESAC, Umiam from 22<sup>nd</sup> - 24<sup>th</sup> October, 2018.*

\* *Pi Vanlalmuansangi, Scientist attended the 'National Workshop on Land Resources' organized by NRSC, Balanagar on 26<sup>th</sup> October, 2018.*

\* *Pi Vanlalmuansangi, Scientist; Pu Vanlalnghaka, Scientist; Pu H.Lalthazuala, Cartographer; Pu Lalfakawma Royte, FA; Pu C.Lalzawngliana, FA; Pu David Vanlalfela Pachuau, FA were detailed for Soil sample collection within Kolasib District under FOCUS Project from 19<sup>th</sup> - 24<sup>th</sup> November & 3<sup>rd</sup> - 14<sup>th</sup> December, 2018.*

\* *A function to celebrate the North East Technology Sabha Award 2018 (Enterprise Mobility Category) received by the Centre was organised at Conference room of Directorate of Science & Technology on 4<sup>th</sup> December, 2018.*

\* *Pu Robert Lalchhanhima Sailo, Sr.Scientist & Pu R.Lalfamkima, Scientist were detailed to attend the FOCUS project meeting at the Office Chamber of Director, Agriculture Department on 5<sup>th</sup> December, 2018.*



*Preview meeting of Election e-Atlas at DST.*



*Participation at 2nd Mizoram Science Congress*



*BootCamp at NESAC for WebGIS & Mobile Apps Development*



*Celebration of MIRSAC's - NE Tech Sabha Award 2018*