



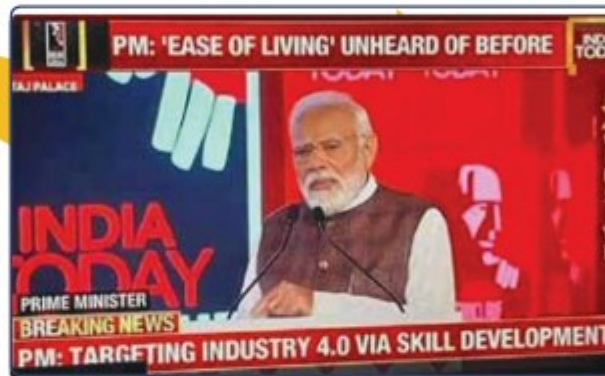
MINISTRY OF DEVELOPMENT OF
NORTH EASTERN REGION



Ka Prime Minister's
Development Initiative Nei
bynta ka North East Region
(PM-DevINE)

**Ka Digital Design waka 3D Printing Center of Excellence haka
Electronic Manufacturing Cluster (EMC) hei jingiakreh lang wa kiwi
wan ki Government Agencieski wu em ha Tech City, Guwahati**

Hei jingiatoh wa ka jingiw iong u Myntri Rangbah wa em burom iong l, wa ka 21st century India daw man ko kawa hakhmat iong ka Industry 4.0 innovation, ka Ministry of Development iong ka North Eastern Region, Government of India (MDoNER) hei jingiakreh lang waka North Eastern Council (NEC) kam juh leh ka AMTRON da sdang ki ia ka jingpynku iong ka Digital Public Infrastructure nei bynta ka 3D Printing Ecosystem. Daw tap lut ko ia waroh ki jylla iong ka NER kam ka 100% Centrally Funded Project (ka project wada ei jingiarap lut da ka central) hapoh iong ka PM-DevINE Budget.



Ka jingiamynjur ka North East waka 3D printing sdang ko haka 3 tarik u August, 2022 dei wa pyniow ki ia ka live demo (ka nuksa krehkam) ha ka North Eastern Council Secretariat, Shillong haka digital designing iong ki prosthetics nei bynta ki 2 ngut ki bru wa chah ah dkhot met kiwa na jylla Meghalaya. Da ei ia ki da ki 3D Printed Sockets/ ki kjat prosthetic, katte kini ki nongioh jingiarap da ioh ki ia ka jingim wa suk wa jemdoh kam juh lehma ko kata ka Model wa pynku kyrdan ia kate ka "Jingsuk iong ka Jingim" nei bynta ki bru wa duna dkhot met.

Kani ka project daw iarap ko ia ki khyrow ka NER iu ioh ki ia ki sap wa iatoh ioh u chim kabu ia ka Industry 4.0. Kani daw pynku ko ia ka jingpynmih wa ka jingiarap phah cha ki thaw sumar kjut, ki thaw sumar jingduna, Ki Oil & Gas Industry, u pynku ia ka MSME Ecosystem / ki sein khih / ki tribal enterprises, ki Border Area Development cha ki kha-l iong ki mar 3D kam juh leh ki kam cha ki ri wa marjan, ter ter. Daw pynman ko ia ka NER ioh u noh synniang ko ia ki bhah iong ka Vision Viksit Bharat @ 2047 ioh u pynman ia ka India ka Global Economic Superpower.



Ka Industry 4.0 pynkyllo ko ia ka rukom chna ki company, pynku kam juh leh sam ko ia ki mar iong ka. Ki nongchna da pyndait ki ia ki technology thymmei kiwa kynthup ia ka Internet of Things (IoT), ka 3D Printing, ka cloud computing wa ka analytics, kam juh leh Artificial Intelligence (AI) waka Machine Learning (ML) cha ka thaw chna thaw pynmih kam juh leh ha ka kynti ki jingkrehkam iong ki. Ka Industry 4.0 da kyrchan ia ka da ka low latency kam juh leh kiwi wan ki jingmyntoi ka 5G enabled telecommunications. Ka 3d Printing chirup waka Industry 4.0 toh ka technology wa iatnei (na pyrdis ki technology wa dang mih) nei bynta u pynku ia ka “Chna ha India” wa em ki jingemkam wa bun. Daw ei lad ko ia I u pyndep haka 21st Century global economy kawa emkam ia ki bork reh kam a khlan kiwa da sikai ha ki rukom chna iong thymmei. Ka 3D Printing toh ka lawei iong ka industry chna mar kam juh leh em ko ia ka bor ioh u kyllieng ia ki rukom chna iong rim myntu lane mynstep da kini ki jingpynemkam wa heh:

1 Ka Tooling toh kawi na ki bynta iong ka iaw nei bynta ka 3D Printing Industry.

Ki thaw puson toh ki MSME Tooling / ki Agri Tooling/ ki Rural waki Small Enterprises nei bynta ka jingemkam ka.

2 Ki Thaw sumar / Ki jinghikai Medical

Em ki lad ioh u ku chibun nei bynta ka 3D Printing haka bynta iong ka Medical, yei u man hei jinghikai Medical (Anatomy, Forensics), Ka jingpynkhreh chwa ka jingsumar (GI/Cardiac/Nephrology, Neurology, Orthopedics, ter ter.), ki jingsumar Oral Cancer wa chong haka Brachytherapy, ka TMJ Disorder Treatment, ka Digital Dentistry (Aligners, Crowns, Implants, ter ter.), ka Trauma Surgery kam juh leh kiwi wan ki jingsumar wa ia syriem, kam ki Reconstructive Surgeries. Hei juh I rukom, em ka lawei wa chia nei bynta ki medical implants wa yei u pynwandur kam juh leh ki tier medical.

3 Ki jingsumar ia kiwa em jingduna / Ki Rehabilitative Services.

4 Ka Fashion & Ka Industrial Design Prototyping

Ki tier Fashion wa ki jingdein, ki design sap kjat, ki design jingdein, ki design furniture, ki personalized gifting, ter ter.

5 Ki Jinghikai Technical

Ka jingpynku ia ki sap ki rukom kreh nei bynta u kreh ha ka iindustrial designing hapoh Industry 4.0 lyngba ki Industrial Training Institutes / Polytechnics, Ki College Engineering, ter ter.

6 Ka Reverse Engineering

Ka Reverse Engineering iong ki spare part wa syat, ki tier wa chna kyrpang / ki tier machin wa high performance, ki tier kyllieng nei bynta ki spares heiwa ka OEM wym em de u chna ki, ter ter.

KI PHANG IONG KA PROJECT

- Ka jingpynbha ia ka jinghikai Technical lyngba ka jingpynbna, ka jingpynsgawthuh, Ki MOOC Courses, ki Use Case labs ha pyrdi ki khyrnrow iong ka North Eastern Region haki jingpynemkam iong ki Digital Designing kam juh leh ka 3D Printing lyngba ka Industry wa ioh jingkyrchan na ka AMTRON – Academia Partnerships.
- U ei thaw ioh u pynku ia ka sap kreh ki khyrnrow kam juh leh ia ka sap kitu wa dang kreh bitied kiwa emkam u ioh ia ki sap thymmei ioh u chakri ki ia ki industry iong ki ioh ki u pynbieng ia ki jingemkam iong ka Industry 4.0 wa katte kam juh leh ka mynstep mynkawi.
- Pynku ia ka Make In India (Chna ha India) ioh u pynduna ia ki tier wa wan nabar / pynkhlai ia ka iaw jingka-I nei bynta ki mar 3D khamtam ha ka chait ka tram / ki jingsumar ia kiwa em jingduna / kharkhana Phnieng wa ka Gas.
- Ei jingiarap ioh u pynman ia ka NER ka Growth Engine iong ka Multi Trillion Dollar Indian Economy India @ 2047 under Viksit Bharat Sanakalp – pyniar ia ja Industry 4.0 Ecosystem ha North East ioh u noh synniang cha ka India Vision @ 2047.

Ka Jingtah wa da iowluti haka SDG 2030 Parameters nei bynta ka North East

1 SDG 3 – Ka Chait ka Tram waka Jingbha Jingmiat

Ki jingpynemkam wa da pynkhreh daw pynku ki ia ka Jingsuk ka Jingim / Jingsuk u leh Business:

- a. Ka Jingsumar – Pynduna ia ka jinglut nap la, pynduna ia ka bai lut por sumar, pynku ia ka jinghikai Medical.
- b. Divyang – Jingsuk u leh Business kam juh leh iarap ia ki ioh u im ki ka jingim wa bieng kawa bieng ka jingioh jingkot.

2 SDG 4 – Ka Jingpule wa Bieng

Ka jinghikai wa bieng nei bynta ki khynrow / ki Professional / ki Entrepreneurs na North East.

3 SDG 5 – Ka Gender Equality

Ka jinghikai ia ki kynthai ha ki 3D Printing Tech nei bynta u sein khih / klam iong ki sap kreh ha ka Industry 4.0.

4 SDG 9 – Ka Industry, ka Innovation & ka Infrastructure

Pynlai R & D nei bynta ki mar thymmei wei pyniar na ki traditional agro/ki kharkhana iong ka mining ha NER. Ka jingkyrchan na ka MSME, ki Private Enterprises ha ka North East kawa duna man da nujor wa kiwi wan ki thaw.

5 SDG 9 – Punduna ia ka jingwym ryngkat para bru

Kani ka project daw pynduna ko ia ka jingiar iong ka jingiapher ha pyr di ka jingioh bynta ka jingpule, ka chait ka tram, ki rukom kha-l cha ki bru ka NER kiwa hap haka Digital Design kam juh leh ka 3D Printing.

6 SDG 12 – Ka Jingkitkhleih ia ka rukom bam & Ka ru kom Pynmih

Pynduna ia ka jingpynmih jakhlia hawa ia nujor wa kiwi wan ki rukom chna.

Ka Workshop – Ki Skul Hikai ha NER

1. Sarthebari Jatiya Bidyalaya, Barpeta
2. Sarukhetri High School, Sarthebari, Barpeta
3. Sarthebari Girl's High School, Sarthebari, Barpeta
4. Smart Computer Education, Sathebari, Barpeta
5. Banchit Choudhury Sankardev Shishu Niketan Sarthebari, Barpeta
6. Sarukhetry Jatiya Vidyalaya, Barkapala, Barpeta
7. Babujee College, Sarukhetri, Barpeta
8. Sarthebari H.S. School, Sarthebari, Barpeta
9. Jnyandeep Anchalik Senior Secondary School, Barghopa, Barpeta
10. B.R. Milan High School, Rauli, Vill. Bhakuatepa, Barpeta

1

ASSAM



17. Digboi Collage, Tinsukia

Tinsukia



18. NIT Silchar, Assam
19. Assam University, Silchar
20. Department of ETC Engg. Silchar Polytechnic, Assam

Cachar

Nalbari

Barpeta

সৰ্থেবৰী
ছোৱালী হাইস্কুল
শ্ৰী ডি প্ৰিটিঙৰ
কৰ্মশালা

প্ৰতিদিন সোৱ. সৰ্থেবৰী, ১৭ মাৰ্চ
১ এম.টী.ম.ৰ উদ্যোগত আন
সৰ্থেবৰী ছোৱালী হাইস্কুলৰ
সহযোগত ১৬ মাৰ্চত সৰ্থেবৰী
ছোৱালী হাইস্কুলত শ্ৰী ডি প্ৰিটিঙৰ
এক কৰ্মশালা অনুষ্ঠিত হ'ল।
কৰ্মশালাত সৰ্থেবৰী ছোৱালী
হাইস্কুলৰে ধৰি অফাৰটোৰ ১০ জন
শুভাৰ ২৪০ গৰাকী ছাত্ৰ-ছাত্ৰীয়ে
ভাগগ্ৰহণ কৰে। প্ৰযুক্তিবিদ্যাৰ
পুৰ্বদৃষ্টিৰ বিহীন অৱস্থাতে ছাত্ৰ-
ছাত্ৰীসকলক ইয়াৰ এক সফল
পেৰাৰ সপক্ষে প্ৰযুক্তিবিদ্যাৰ প্ৰতি
ছাত্ৰ-ছাত্ৰীক আকৰ্ষিত কৰা
কৰ্মশালাখনৰ মূল উদ্দেশ্য।
কৰ্মশালাৰ ছাত্ৰ-ছাত্ৰীক শ্ৰী ডি
প্ৰিটিঙৰ প্ৰশিক্ষণ নিজে এম.টী.ম.
সফল হ'লোৱে।

Kamrup Metro

11. Balabhavan Vidyapith High School, Sariahtali, Nalbari
12. Swami Paramanda Girl's High School, Sariahtali, Nalbari
13. ITI, Nalbari
14. Prabhati Bishnujyoti Self Help Group, Milanpur, Nalbari

15. ITI Women College,
Kamrup Metro, Guwahati
16. Girijanand Chowdhury University,
Kamrup Metro, Guwahati





MIZORAM



Serchhip District

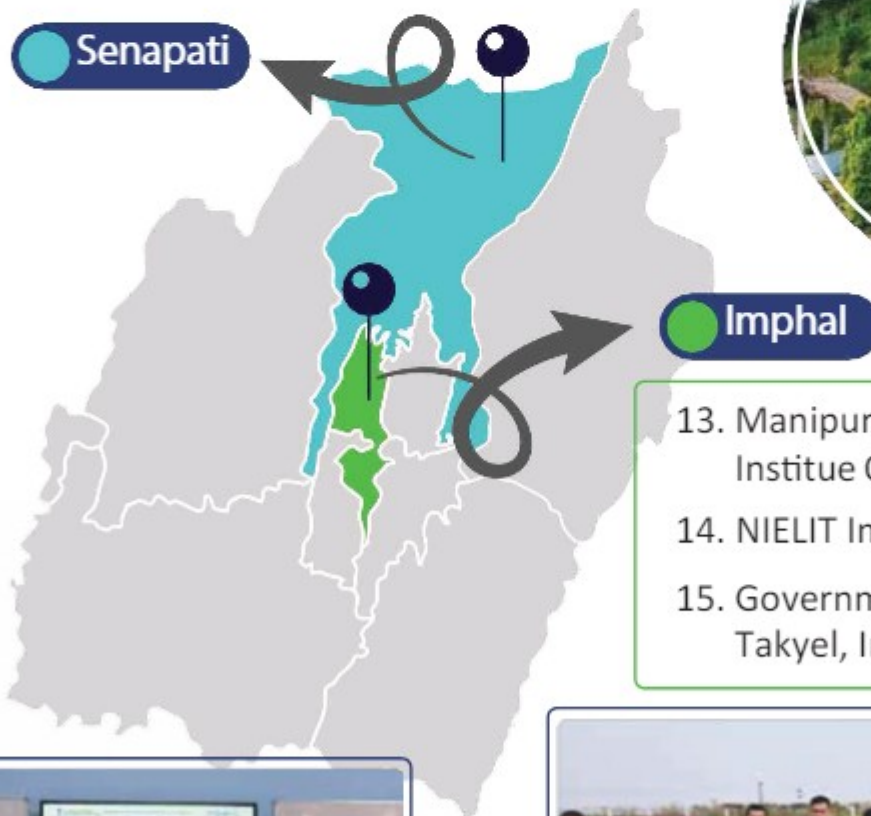
1. District Institute Of Education & Training, Serchhip
2. Government Serchhip College, Serchhip
3. Government Serchhip Higher Secondary School, Serchhip
4. Eklavya Model Residential School, Serchhip



3

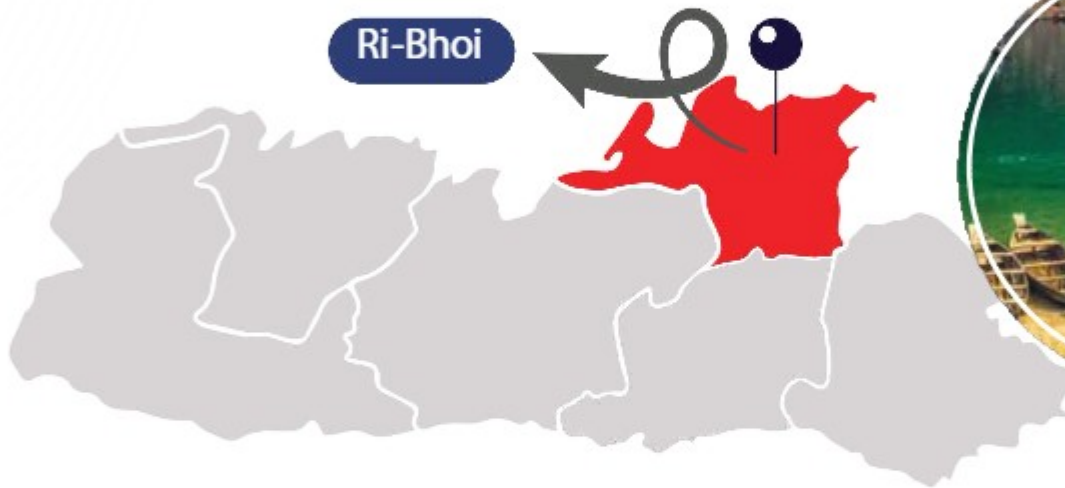
MANIPUR

1. ISÜPHI Education Center, Chisari, Chowainamei, Senapati
2. Sardar Patel High School, Senapati
3. St. Xavier's School, Makhan, Senapati
4. ST Joseph's H.R School, Tadubi, Senapati
5. Mount Gibeon Higher Secondary School, Tadubi, Senapati
6. Nazareth Residential School, Mao Gate, Senapati
7. Okai Academy, Mao Gate, Senapati
8. St Joseph High School, Lower Shajouba, Tadubi, Senapati
9. Asufii Christian School, Punanamei, Mao Gate, Senapati
10. Don Bosco Hr. Sec. School, Mao Gate, Senapati
11. Sophia English School, Punanamei, Mao, Senapati
12. Asufii Christian Institute, Punanamei, Mao, Senapati



13. Manipur University and Manipur Institute Of Technology, Takyelpat
14. NIELIT Imphal, Akampat
15. Government Polytechnic, Takyel, Imphal





1. Alpha English Higher Secondary School, Pahamsyiem, Nongpoh, Ri-Bhoi
2. Savio Secondary School, Nongpoh, Ri-Bhoi
3. Nomiwell Memorial Secondary School, Nongpoh, Ri-Bhoi
4. Saiden RMSA Secondary School, Saiden, Ri-Bhoi
5. Ri-Bhoi Presbyterian Synod English Secondary School, Pahamlapong, Nongpo, Ri-Bhoi
6. Umsning Presbyterian Higher Secondary School, Umsning, Ri-Bhoi
7. Nongthymmai Presbyterian Sec. School, Umsning, Ri-Bhoi
8. Gorkha Pathsala Secondary School, Umsning, Ri-Bhoi
9. Balawan College, Umsning, Ri-Bhoi
10. Sati Raja Memorial Sec. School, Umsning, Ri-Bhoi
11. Eden Academy Sec. School, Umsning, Ri-Bhoi
12. St. Michael Higher Sec. School, Umsning, Ri-Bhoi
13. Umsning Town Durvar Sec. School, Umsning, Ri-Bhoi

5

ARUNACHAL PRADESH

1. College Of Agriculture, Pasighat, East Siang
2. Arunachal Pradesh University, Pasighat, East Siang
3. Govt. HR. Sec. School, Borguli, East Siang
4. IGJ Govt. HR. Sec. School, East Siang
5. Pasighat Sigma Institute Pvt. Ltd., East Siang
6. Govt. HR. Sec. School MEBO, East Siang
7. D.E.M Govt. HR. Sec. School, Pasighat, East Siang
8. Government Polytechnic Pasighat, East Siang
9. Govt. HR. Sec. School, Ruksin, East Siang
10. College Of Horticulture / College Of Forestry, Pasighat, East Siang

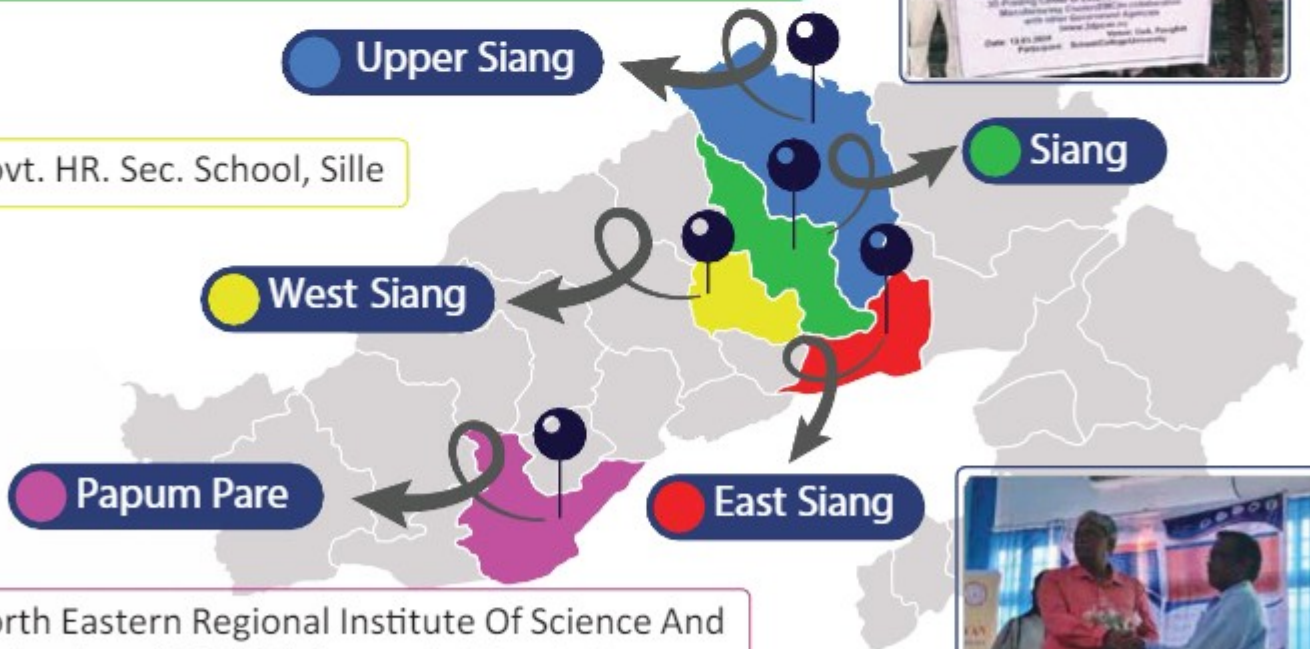


11. Govt. HR. Sec. School Marvang, Upper Siang
12. Govt. H.S. School, Yingkiong, Upper Siang



13. Govt. HR. Sec. School, BolengSiang

14. Govt. HR. Sec. School, Sille



15. North Eastern Regional Institute Of Science And Technology (NERIST), Arunachal Pradesh



6

NAGALAND



EASTERN MIRROR
JOURNALISM FOR JUSTICE

Immanuel College hosts 3D printing workshop for Education

Immanuel College in Dimapur has organized a 3D printing workshop for students and staff. The workshop was attended by students of Holy Cross HR. Sec. School, Government High School Lengrijan, Holy Cross HR. Sec. School, and Christian Higher Sec. School. The workshop was held at the college premises. The students were introduced to the basics of 3D printing and its applications in various fields. The workshop was a great success and the students were very enthusiastic. The workshop was held on 15th Nov 2023.

1. Pranabananda Women's College, Dimapur
2. Nagaland Tool Room & Trg. Center, Dimapur
3. Holy Cross HR. Sec. School, Dimapur
4. Government High School Lengrijan, Dimapur
5. Immanuel Collage, Lengrijan, Dimapur
6. Christian Higher Sec. School

3D printing workshop for education held in Dimapur

A 3D printing workshop for education was held in Dimapur. The workshop was organized by the Ministry of Development of North Eastern Region. The workshop was held at the college premises. The students were introduced to the basics of 3D printing and its applications in various fields. The workshop was a great success and the students were very enthusiastic. The workshop was held on 15th Nov 2023.



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SIKKIM

1. Govt. Sec. School Melli Aching , Gyalshing, West Sikkim
2. Government Yuksam SR. Sec. School, Gyalshing, West Sikkim
3. Dentam SE. Sec. School
4. Khechupari Govt. SR. Sec. School
5. Vocational College Dentam
6. Govt. Junior High School Chingthang
7. P.R. Lama Govt. SR. Sec. Sec. School Yangsum, West Sikkim
8. Govt. SR. Sec. School Darap, Gyalshing
9. Govt. Sec. School Central Martam, Gyalshing
10. Govt. Junior High School, Onchung, Gyalshing
11. Govt. Sec. School Rinbik Gyakshing
12. Govt. SR. Sec. School Pelling, Gyalshing
13. District Institute Of Education And Training (DIET)
14. Govt. Sec. School Middel-Gyalshing
15. Govt. Girl's SR. Sec. School, Kyongsha, Gyalshing
16. Govt. SR. Sec. School Legship, Gyalshing
17. Industrial Training Institute, Gyalshing

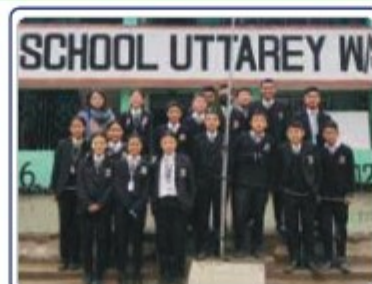


West Sikkim



Pakyong

18. Sikkim Manipal Institute Of Technology, Sikkim Manipal University
19. Government SR. Sec. School, Uttarey, West Sikkim
20. Govt. Senior Secondary School Sakyong, Gyalshing



1. Bir Bikram Memorial College, Agartala
2. Maharaja Bir Bikram College, Agartala
3. Women's Collage, Agartala
4. Bhavan's Tripura College Of Science & Technology, Anandnagar
5. Tripura University, Suryamaninagar
6. Techno College Of Engineering, Agartala
7. Bharat Pharmaceutical Technology, Amtali, Agartala
8. National Institue Of Electronics & Information Technology (NIELIT), Agartala
9. Ramthakur College, Agartala
10. TTAADC Poytechnic Institue, Khumulwng



Agartala



Ka Workshop – Ki Healthcare Institutions ha NER

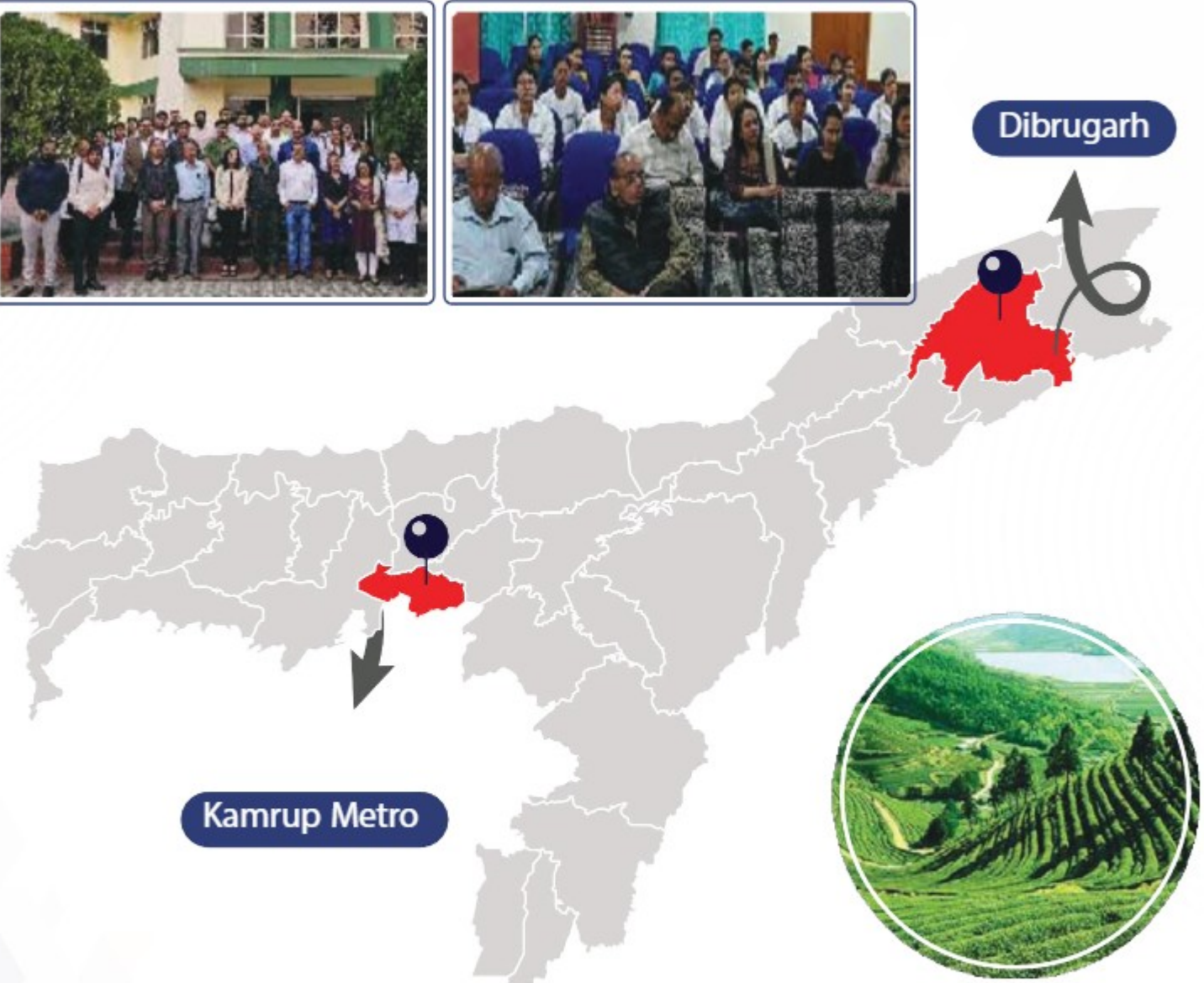


ASSAM

Assam Medical College, Dibrugarh along with Institute of Paramedical Sciences under AMC, Dibrugarh and BSC Nursing College, Dibrugarh



Dibrugarh



Kamrup Metro



Regional College of Nursing, Indrapur, Guwahati



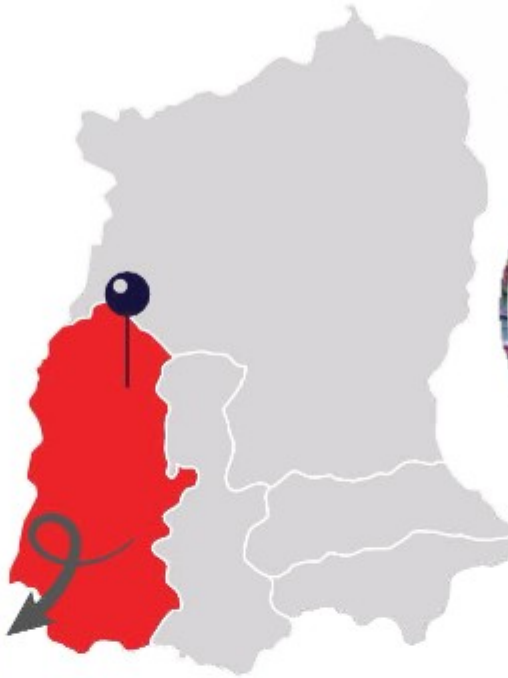
MIZORAM



Serchhip District

District Hospital, Serchhip





West Sikkim District

District Hospital, Gyalshing





NAGALAND



Naga Hospital Authority, Kohima



5

ARUNACHAL PRADESH

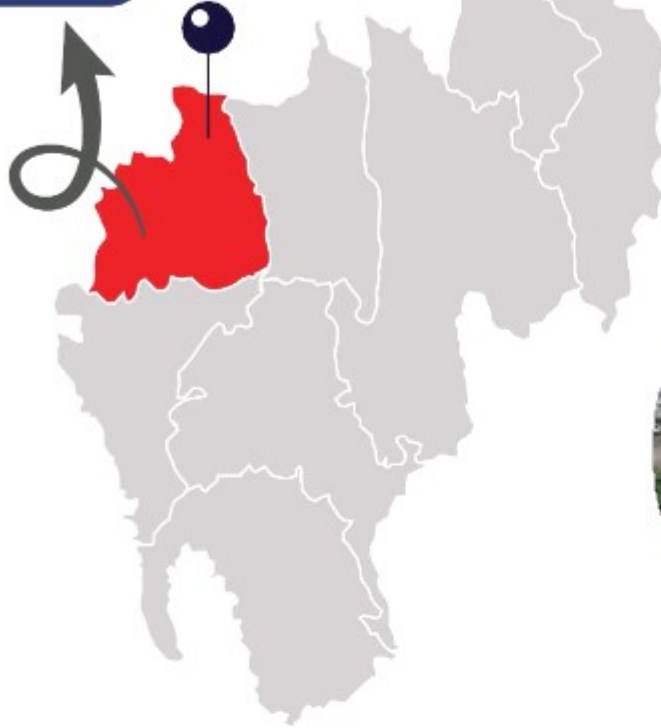


Papumpare District

Abotani Dental Clinic with members of Arunachal Pradesh State Dental Council, Itanagar



Agartala



Tripura State Red Cross Society, Agartala



MANIPUR

Workshop on use of digital designing tools held

RIMS observes Oral Health Day, holds health camp

The Department of Physical Medicine and Rehabilitation (PMR), Regional Institute of Medical Sciences (RIMS) organised a workshop on 'Use of Digital Designing Tools and 3D Printing to provide custom designed prosthetics and orthotics devices to patients in need' at RIMS Seminar Hall today.

The workshop was conducted under the project awarded to AMTRON, a PSU of Assam Government, by the Ministry of DoNER, Government of India.

It was attended by a diverse mix of medical professionals such as junior residents, senior residents, assistant professors, and professors from both PMR and sports medicine specialties.

RIMS Director, Prof. G. Sunil Kumar Sharma and Dr. L. Nilachandra Singh, Head of

Workshop organised at RIMS
IMPHAL, Mar 28

Department of PMR also grand the workshop.

The workshop commenced with a detailed demonstration of below knee amputation scanning, followed by the conversion of raw images into precise 3D models using advanced software.

Participants actively engaged in post-processing design work, refining 3D models to determine optimal pressure distribution for prostheses, thereby enhancing comfort and functionality.

This modern approach represents a significant advancement over traditional techniques since the digital designing is much faster and the products are more comfortable for beneficiaries.

Additionally, all attendees were provided with hands-on experience, allowing them to directly manipulate and interact with the 3D models.



Imphal West District



Regional Institute Of Medical Sciences, Imphal



West Garo Hills District



District Hospital, Baghmara



3D Printing Centre of Excellence,
Tech City,
Assam Electronics Development Corporation Limited (AMTRON),
Bongora, Near Lokpriya Gopinath Bordoloi International (LGBI) Airport,
District Kamrup - 781122, Assam, India
Email: 3dpcoener@gmail.com