FORMAT FOR SUBMISSION OF PROGRESS REPORT STATE/INSTITUTIONAL <u>LEVEL</u> BIOTECH HUBS (Format for biotech hubs sanctioned during 2010-11 and 2013-14)

Period under report 2016 - 2017

| 1. | Name & address of the institution: | Lady Keane College, Shillong |
|----|--|---|
| 2. | Name & designation of the Coordinator: | Mr. G.G. Syngai, Assistant Professor & Head, Department of Biochemistry, Lady Keane College, Shillong |

3. Telephone, Mobile, Fax and Email of the Coordinator: +919856007518 (M) ggsyngai@gmail.com

4. Level of the Biotech Hub: Institutional

- 5. Year of sanction with DBT's sanction no.: BT/04/NE/2009 dated September 21, 2010
- 6. A brief write up about your organization/institution (not exceeding 10 lines):

Lady Keane College which was established in 1935 is one of the premiere institutes for women's education in North East India. With an aim at providing excellent all round education; it strives to empower women for becoming future leaders of tomorrow and who will help shape society. Our commitment to quality found its stamp of approval from the National Accreditation and Assessment Council (NAAC), Bangalore when this apex autonomous agency reaccredited our institution and awarded 'A' Grade with our quality profile standing at 3.09 (CGPA) on a 4 point scale. The motto **"Excellence with Integrity"** is the driving force behind each endeavour of every single member – past and present- of this college, to impact the life of every young woman who wisely chooses to be nurtured and educated by it.

7. Total funding received so far (Rupees in lakhs):

| Financial year | 2010- 11 (1 st vear) | 2011- 12 (2 nd vear) | 2012- 13 (3 rd year) | 2013- 14 (4 th vear) | 2014- 15 (5 th year) | 2015- 16 (6 th year) | 2016- 17 (7 th year) | Total | Balance on 31/03/2017 |
|--------------------|--|--|--|--|--|--|--|-------|-----------------------|
| Amount Received | 19.00 | 10.03 | 5.21 | 3.67 | 2.47 | 4.52 | - | 44.90 | 0.57269 |

- 8. Infrastructure created:
 - (a) List of equipment procured: (Pl. list all the equipments procured under the biotech hub since its inception)

| Sl. No | Name of the equipment | Model No & Brand Name | Cost in Indian Rupees (in Lacs) | Date of Purchase | No. of researchers/ students utilized Equipments |
|-----------|--|--|---------------------------------------|------------------|---|
| 1 | Refrigerated Centrifuge (17,500rpm) 1.5/2.0 ml micro tubes | 5430 R Eppendorf | 4.7 | 19/01/2011 | 16 |
| 2 | UV/ Vis Spectrophotometer | UV –1800 Shimadzu | 5.025 | 20/04/2011 | 86 |
| 3 | Digital Trinocular Microscope | Lx 400 Labomed | 0.78 | 20/04/2011 | 16 |
| 4 | Vertical Slab Gel Electrophoresis | 02 -00142 TechnoSource | 0.14 | 29/03/2011 | 2 |
| 5 | Submarine Electrophoresis Unit | 08 -00105 TechnoSource | 0.16 | 3/05/2011 | 2 |
| 6 | Electrophoresis Power Supply | PAGE-100 TechnoSource | 0.45 | 29/03/2011 | 2 |
| 7 | Western Blot System | MX – 246 – 01 Medox | 0.13 | 3/05/2011 | |
| 8 | Computer (1 No.) | p6338in HP Pavilion | 0.4559 | 21/01/2011 | 7 |
| 9 | Laser Printer | LBP 2900B Canon | 0.0659 | 21/01/2011 | 7 |
| 10 | Gel Rocker | MX – 1290 -02 Medox | 0.18 | 29/03/2011 | 2 |
| 11 | Electronic Balance | JA -310 Shinko | 0.35 | 29/03/2011 | 4 |
| 12 | Refrigerator (175 Litres) | 185RP3 LG | 0.099 | 20/04/2011 | 4 |
| 13 | Micropipettes | Proline-var. 0.1 – 3 μl BioLit | 0.105 | 29/03/2011 | 7 |
| 14 | Micropipettes | Proline-var. 2 – 20 µl BioLit | 0.05 | 29/03/2011 | 7 |
| 15 | Micropipettes | Proline-var. 10 – 100 µl BioLit | 0.05 | 29/03/2011 | 7 |
| 16 | Micropipettes | Proline-var. 20 – 200 µl BioLit | 0.05 | 29/03/2011 | 7 |
| 17 | Micropipettes | Proline-var. 100 – 1000 μl BioLit | 0.05 | 29/03/2011 | 7 |
| 18 | Micropipettes | Proline-var. 1000 – 5000 µl BioLit | 0.05 | 29/03/2011 | 7 |
| 19 | pH meter | CL 110 Chemiline | 0.07 | 29/03/2011 | 7 |
| 20 | Hot Air Oven | 143(OUA–2) NSW | 0.2019 | 20/04/2011 | 7 |
| 21 | Serological Water Bath | 125(SBS-1) NSW | 0.1298 | 20/04/2011 | 3 |
| | | | | | Contd |

| Sl. No | Name of the equipment | Model No & Brand Name | Cost in Indian Rupees (in Lacs) | Date of Purchase | No. of researchers/ students utilized Equipments |
|-----------|--------------------------------------|--------------------------|---------------------------------------|------------------|---|
| 22 | Autoclave | 229 NSW | 0.0979 | 20/04/2011 | 25 |
| 23 | UPS | FPS 600 Foxin | 0.02 | 21/01/2011 | |
| 24 | Online UPS with 16 Nos. Batteries | IntelliQ Series SUKAM | 3.95 | 26/03/2014 | |
| 25 | Inverter with 8 Nos. Batteries | IntelliQ Series SUKAM | 1.95 | 27/03/2014 | |
| | | Total cost = | 19, 31, 045 | | |

9. Detail of hands on training programmes/workshops organized during the period of report:(a) Hands on trainings conducted:

| Serial | Торіс | Duration | No. of | Level of |
|--------|---|--|--------------|---|
| No. | | and Date | participants | participants |
| 1. | A Fifteen-Day Training Programme for Biotechnology students of St. Edmund's College, Shillong on | Fifteen days 20 th April - 4 th May,2016 | 5 | B.Sc. 3 rd year (Honours) |
| 2. | "Biological Techniques" A Three-Day Training Programme for the B.Sc. 4 th Semester Life Science students of Lady Keane College, Shillong on " <i>Plant Tissue Culture</i> " | Three days 28th -30th November, 2016 | 24 | B.Sc. 4 th Semester Life Science students |

(b) Overall score of the training programmes according to participants as per feedback taken in the prescribed format:

| Total No. of participants | No. & per | No. & percentage of participants assigning score of | | | | |
|------------------------------|-----------|---|----------|---|---|--|
| participants | 5 | 4 | 3 | 2 | 1 | |
| 29 | 12 | 12 | 5 | - | - | |
| | (41.38%) | (41.38%) | (17.24%) | | | |

*Mention percentages in parenthesis

(c) Workshop/seminars/awareness programmes conducted:

| SI. | Торіс | Duration | No. of |
|-----|---|-------------------------|--------------|
| No. | | and Date | participants |
| 1. | "Cancer and its prevalence in Meghalaya – An Overview" | One hour | |
| | Talk cum Awareness Programme for the BSc 4th Semester | 28^{th} | 64 |
| | Students of Lady Keane College, Shillong. | February, | |
| | | 2017 | |
| 2. | Hands-on Activity on "Basic Biological Experiments" | One day | |
| | for Class IX students of Jyoti Sroat School, Shillong (An | 15 th March, | 25 |
| | inclusive school for children with special needs)** | 2017 | |
| | | | |

**Jyoti Sroat School, Shillong run by the Bethany Society was established in 1993 as a special school for the visually impaired and it was in 2006 that the concept of inclusive education was introduced in the school so as to cover all children including the differently-abled, disadvantaged, marginalized and those coming from difficult circumstances. Padmashree Ms. Bertha Gyndykes Dkhar, former headmistress of the school is also a recipient of the National Award for Child Welfare from the Government of India.

- (d) No. of students doing project works using biotech hub facility: UG: PG: Ph.D.: 1 (One) Undergoing
- (e) Courses/Study programmes supported (by biotech hub infrastructure & facilities):

| SI. | Level | Name of the Course/Study programme | Nature of support |
|-----|-------------|------------------------------------|----------------------------|
| No. | (UG/PG/PhD) | | |
| 1. | UG | Biochemistry (Honours), | Provided equipments for |
| | | Botany (Honours), | conducting the practicals |
| | | Zoology (Honours) | |
| 2. | Ph.D | Ph.D programme | Provided equipments, |
| | | | chemicals and other |
| | | | miscellaneous requirements |
| | | | _ |

(f) Outreach programmes conducted:

| Serial No. | Торіс | Name of the institution where conducted | Duration and Date | Level of participants |
|---------------|--|---|--|--|
| 1. | "Biotechnology - An application of Technology in Biological Sciences" | St Margaret's Higher Secondary School, Shillong | Two hours 28 th July, 2016 | Class XI and XII Science students |
| | | | | Contd |

| 2. | "Biotechnology In Food Industry" | Brookside Adventist Higher Secondary School, Shillong | One Hour 7 th September,2016 | Class XI and XII Science students |
|----|---|---|---|--|
| 3. | "Biotechnology- Its Relevance In Today's Time" | Seven Set Higher Secondary School, Shillong | One Hour 17 th November,2016 | Class XII Science students |
| 4. | "Biotechnology And Its Role In Agricultural Development" | Army Public School, Shillong | One Hour 24 th November,2016 | Class XI Science students |

(g) Invited lectures/hands-on trainings offered at other institutions:

| SI. No. | Name of the resource person | Торіс | Organised by | Duration & Date |
|------------|-----------------------------|-------|--------------|--------------------|
| | | | | |

10. Research activities (please provide details of only those research activities being carried out at biotech hub):

(a) Type of work carried out:

| SI. No. | Title of the research | Persons involved | Status (Ongoing/completed) |
|------------|---|--|-------------------------------|
| 1. | "Acute toxicity of aqueous extract of Zingiber officinale rhizomes on common carp (Cyprinus carpio carpio L., 1758)" | G.G.Syngai S.Dey R. Bharali | Ongoing |
| 2. | "Acute toxicity of aqueous extract of <i>Allium sativum</i> on juvenile common carp (<i>Cyprinus carpio</i> L., 1758)" | G.G.Syngai S.Dey R. Bharali | Completed |
| 3. | "Study on the effect of automobile pollution on the abundance of soil arthropods and a simultaneous analysis of the chlorophyll content, catalase activity and heavy metal accumulation in Oxalis corniculata" | Dr.D.G.Marbaniang, Dr. P.Law, Dr.S.Dohling, Dr.D.Nongbri, Mr.R.Decruse, Mr.L.Pyngrope, Mrs.W.Lyngdoh, Mr.G.G.Syngai, Mr.B.Sohkhlet | Completed |

(b) No. of papers published/presented with impact factor (please mention only those arising out of biotech hub support): (Provide a list on a separate sheet, if necessary, Papers with due acknowledgement)

(Provide a list on a separate sheet, if necessary. Papers with due acknowledgements to the Biotech Hub should only be listed.)

- Syngai, G.G., Kharwanlang, B., Sohkhlet, B., Laloo, A.M., Nongbri, D., Challam, M., Mawroh, H. (2016) Effect of automobile pollution on the chlorophyll content of *Oxalis corniculata* L. leaves. *Poll. Res.* 35(4): 739-747.
 H Index 18 Scopus 0.14
- (c) Collaboration with other departments/institutions:

| SI. No. | Dept./Institution collaborated | Nature of collaboration | Duration |
|------------|---|--|-----------------------------|
| 1. | Department of Biochemistry, Lady Keane College, Shillong | Training programme on: "Biological Techniques" | 7(seven) days |
| 2. | Department of Botany, Lady Keane College, Shillong | Training programmes on: "Biological Techniques" & "Plant Tissue Culture" | 3(three) + 3(three) days |
| 3. | Department of Zoology, Lady Keane College, Shillong | Training programme on: "Biological Techniques" | 2(two) days |
| 4. | Department of Chemistry, Lady Keane College, Shillong | Training programme on: "Biological Techniques" | 1(one) day |
| 5. | Department of Biochemistry, St. Edmund's College, Shillong | Research Publication | 1(one) year |

11. Major achievements of the Biotech Hub during the year:

- Outreach Awareness Programmes were conducted for the Class XI & XII Science students in 4 different schools in the city with the participation of 316 students.
- Training Programmes conducted were 2 in all and with a total number of 29 students who could be trained.
- An in-house Awareness Programme was organized for 64 BSc student participants from the college.
- A One-Day Workshop was conducted for 25 Class IX students of an inclusive school; with the students' observation being that they have come to know about certain experiments which were new to them.
- > Two Minor Research Projects were completed.
- > A Research Paper was published in a peer reviewed journal.
- > We came up with the 2nd Issue of the Keanean Bio Connect Newsletter.
- National Science Day -2017 was observed in the College by organizing an awareness programme with Dr. (Mrs) Judita Syiemlieh, MD, Department of Radiation Oncology, Civil Hospital, Shillong as the Resource Person.
- Provided infrastructural support to the Undergraduate Life Science Programmes.

- Standard Operating Protocols for the experiments conducted during the training programmes have been compiled in the form of manuals.
- Standard Operating Procedures (SOPs) of the high-end equipment's continues to be maintained in the Institutional Biotech Hub Laboratory.

| 12. Manpower Re | ecruitment Details: |
|-----------------|---------------------|
|-----------------|---------------------|

| SI. | Name | Designation | Specialization | Period of |
|-----|----------------------------|-------------|----------------|-------------------------------|
| No. | | | | engagement |
| | Mr. Badaplang | | | From 16 th May |
| 1. | Sohkhlet | SRF | Biochemistry | 2011 till |
| | Sonkinet | | | 9 th July 2014 |
| | Ma Abigail Majaw | | | From 16 th October |
| 2. | Ms. Abigail Majaw Laloo | JRF | Biochemistry | 2014 till 31st |
| | Laloo | | | December 2015 |
| | Ma Malarihan Chiche | | | From 6 th April |
| 3 | Ms. Melarihun Shisha | JRF | Biotechnology | 2016 till |
| | Lyngkhoi | | | 12th April 2017 |
| 4 | Mr. Banmanbha | Laboratory | | On a monthly |
| 4 | Tymthai | Attendant | - | basis |

13. Service provided:

 (a) No. of students/workers utilizing the facilities: Students – 50 Faculty – 4(Botany), 1(Zoology) and 3(Biochemistry)

(Must have documentary evidence)

| - | The second | 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
|---------------------|---|--|-------------------|
| | | | |
| Inst | Itutional Biotech Hub, Lady Keane College SHIMADZU UV-VIS SPECTROPHOTOMETER | , Shilong | |
| | (UV-1800) LOG REGISTER | | |
| 1. | | C | REMARK |
| DATE TIME | USER | SIGNATURE | 10011 |
| FROM TO | Contraction of the second second | De. | Good. |
| 4/5/16 2:50 8:30 | S. Dohling . | 8 | Goed. |
| 6/6/16 11.00 5:40 | S. Dohling. | 8 | Good . |
| 7/5/16 12.00 5.00 | S. Dohling | 1 | God . |
| 14/5/14 1-30 2-00 | 3. Dokling | p h lale | Good. |
| 14.30/57% 3.00 3.30 | A tale (BOTI | (pp) A fale | V. Good. |
| 6.6.16 1.15 1.50 | | - Fi | V. Good. |
| 7-6-16 12:15 1:00 | Base The Horn (200) | Ar | V. Grod |
| 9-8-16 9.45 | B-SC III Year (Zoo) | Retativi | v. Grod . |
| 9.6.16 9.15 9.45 | K. Jale (BOT) | 1 01. | r. brod |
| 92.6.16 10.45 | 1 th Pale (Ben Bo | I) A fine | v-Good |
| 24.6.16 01.15 5.001 | | OF | N.6000. |
| 571610:40 11:05a | m K Pala (BOT) | 1 this | 1.00. |
| 10716 1:00 2:59 | | | The second second |
| 39.7.16 1:00 9:10 | BBC 157 Sem (BC) | | - |
| 5.8.16 2:30 2:5 | 0. BSC Ist Sem (BC | H) 12/7 | v. Good . |
| 5-8-11 4.00 5.00 | S. DOHLING | de Jule | V.Good . |
| 10.8.14 2.30pm3.30 | pm 12. Pala | | V. 6002 |
| 31.8.16 2.150- 2.25 | pr BSc II year (0 | (H) 5.2.6. | |
| 8.9.16 1.58pm 2. | 10 pm K-Valle | 1 | 1.60001 |
| 9/9/76 1:50pm R-2 | BSC 1" SEM | I. Snatary | 14 |
| 919/16 2:101-2: | ezh BS" \$ " Se | IA. | |
| 12/9/16 3.30pm 4.0 | | Afali | V. Good |
| 10/01/ 2-3000 3-0 | opm K-Pala | 1 Jala | v. hord. |
| 16/9/16 4:15 pm 4:5 | gun K. Maldoh | Mahdol | |
| | 30 K. Valu | 1 ta | a v. and . |
| 31916-3.00 3. | 30 K. Maldoh | Palot | |
| SIL 11-9 | 00 S-Mayhory | Spleight | V. 9000- |
| 2/10/16 11:00 3: | × . () / | SAT | V.V. good |
| 0100 | 30 G.G. SYNGAI | gin | Good. |

| | | | Institutional Branch Mo., Juny Kanon College, Salling Sendar20 U-0-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2- | | | | |
|-----|----------|-----------|---|---------------------------------|---------------------|------|--|
| | DATE | TIME | anural | USER | SIGNATURE | REM | |
| | | FROM | To | | 1 00 | 7 | |
| | 26/10/16 | 1.00 PM | 5.00 PM | KHM PALA , S-DOHLIN K-MALDOH | 4. 02 | Go | |
| | 14/12/16 | 1.30 PM | \$-00 PM | K. MAKDON , P. LAW | () | 1.6 | |
| | 17/12/16 | 1.00 PM | 6.00 PM | - 00- | De | V.6 | |
| | 19/12/16 | 3.00 PM . | 4-308m | - 00- | A bala | 2-6 | |
| | 8/2/17 | 3-508H | 3-30PM | - 00 - | Alale | Nº 6 | |
| | 9/2/17 | 11.55 an | 12.30 | - 00 - | of Jack | Ve | |
| 1. | 10/2/17 | 3-30pm | 4-30% | - 00 - | (Bladd | VG | |
| | 21/2/17 | 2-00 pm | | | A Sale | Vi | |
| 5 | 22/2/17 | 12.00 | 3:100 | | Mahada | v.4 | |
| | 21/2/17 | 11.00 an | 11.55 p | m - 10 - | I fale | Nrt | |
| | 31/3/17 | 3.25pm | 3.52 pr | - Bisc II semester | Fallans | N.C | |
| | 14/12 | 10.00 an | 2.459 | m K. Bale. Spahlin | 3 1 Jak | 20 | |
| | 3/5/17 | 2.30 p | 4 5.30p | a K-makdah. | + Jab | NV- | |
| | 8/5/17- | 11:30 AM | 12 00 pr | P Minjap. | anger a | 1 | |
| | | | 1 | | - 0 - | 12 | |
| | | 1.600 | | Dogwine 1 | 5 500 - 5. | 3.4 | |
| 1 | | Wieror | | | A ANDERED | 5 | |
| | | 180 | | | 20 3252 3 | 120 | |
| | 1. 1 | 13.0 | | | | 1 | |
| 5 | | | (Realition) | | | - F | |
| | | | 1 | the setting | A 185 5 - 0 | | |
| | | the set | - aller | | | 1 | |
| | | in an | 1 slap | | and a | 1.0 | |
| | | Ser 8 | - Ditta | West and and and | N Plant M | H F | |
| 1 | | | | I'll she and | State of the second | 223 | |
| 7 | 1 | in star | | Marked Press | X chiel o | 03 | |
| - | | 1000 | Innens | | 1 7 1 1 1 1 1 1 1 1 | 1 | |
| 100 | icel . | N-WV | | the second | n.d pare or | | |
| | | | | | | | |

| Institutional Biotech Hub, Lady Kcane College, Shillong EPPENDORF CENTRIFUGE (5440 R) LOG REGISTER | | | | | | | |
|--|---|-----------|---|-------------|-----------|--|--|
| DATE | TIME | | USER | SIGNATURE | REMARK | | |
| _ | FROM | To | | Firster - T | 11 | | |
| 22/1/14 | 12:40m | NAD P.H. | G.G.SYNGAI | CAP- | GOOD | | |
| 25/1/16 | 12:15PM | 1:15 P.M. | G. G. SYNG AL | ypr | Good. | | |
| 27/1/14 | 11:00 AM | 12:0 No00 | G.G. SYNGAI | gg - | 412 | | |
| 29/1/16 | 10: 30 AM | 11 30 AM | G.G. SYNGAL | game | 10.201612 | | |
| 4/2/16 | 10:20 AM | 11>20Am | G.G. SYNGAI | 992- | -4 7 | | |
| 5/2/16 | 11:00 AM | 12:00 Non | G. G. SYNGAI | gan- | 741 | | |
| 9/2/16 | 2 20PH | 4:10 PM | G.G. SYNGAL | 9pm | 4 | | |
| 11/2/16 | 9:50AM | 10:50Am | G. G. SYNGAL | ipp | | | |
| 12/2/16 | 2:10 PM | 3:10 PM | G.G. SYNGAL | the | - | | |
| 28/2/16 | 9.05 A | | G. G. SYNGAL | Game | | | |
| 24/2/16 | 9:00A+ | 9:55AM | G.G. SYNGAI | yes- | | | |
| 25/2/16 | 9:30A | 10:25AH | G. G. SYNGAI | affer | 4 | | |
| 26 2/16 | 9:054 | 9:55AH | G.G. SYNGAI | igh- | | | |
| 10/4/16 | 10:50A | 11:45 AM | G. G. SYNCAL | 19th | | | |
| 11/4/16 | 8:30 | | G. G. SYNGAI | CAR- | | | |
| 12/4/16 | 9:45 AH | | G. G. SYNGAI | com | | | |
| 13/4/16 | 10:15A | | G. G. SYNGAI | que | | | |
| 14/4/16 | 12:300 | | G.G. SyNGAI | the | | | |
| 24/4/16 | | | G.G. SYNGAI | tip | | | |
| 25/4/10 | | | G.G. SYNGAL | car | | | |
| 26 14/16 | | | | (Ch- | 15 | | |
| 1/3/16 | | | G. G. SYNGAN | as- | GOOD | | |
| 2/5/16 | | | | apr- | - 11 | | |
| 8/5/16 | 100000000000000000000000000000000000000 | | | an | - 61 | | |
| 15 5 16 | | | the second s | CAL | | | |
| 16/5/16 | | - | | 60mm | | | |
| 17/5/16 | | | | apr | 4 | | |
| 18/5/16 | | | | Color | | | |
| 31/7/1 | | | in the second | GAR | GOOD | | |
| 17 10 1 | - | | 01-1-0 4-0 | Can | GODD | | |

| Institutional Biotech Hub, Lady Keane College, Shillong EPPENDORF CENTRIFUGE (5400 R) LOG REGISTER | | | | | | |
|--|--|--|--|----------------------|------------|--|
| DATE | TIME | -21-1 | USER | SIGNATURE | REMARI | |
| 2 | FROM | То | | | 4 | |
| 23/10/16 | 1-30 MM | 4.00 PM | S. DOHLING, K.H.M.PALA K. MAKDOH | 32 | GOOD | |
| 25/10/16 | 1-30 PM | 4.00 PM | - DO - | 02 | GOOD | |
| 81/2/17 | 2.00 PM | 3.00 PM | - 00 - | 12 Bale | v. Good. | |
| 27/2/17. | 11.200m | 3:15 pm | - po - | Valded | v. Good | |
| 1/5/17 | 10.000 | 1-50pm | NO NO D | h file | v- hore | |
| 3/5/19 | 2.00am | 5.30pm | 11 | to falo | v. Good | |
| - 1 | the | V | 200000000 | a children and | 41. 12 | |
| | | | Income and the | A 1943 1952 | Sec. and | |
| 10.00 | 1 | 1- | Contraction Berlin Contraction | - STATE IMAGE | (alies | |
| 1. 11/19/ | 1 Carter | 10-point | In the District | A 165 172 | 1 1 1 1 1 | |
| | - Leena | | man and a series | MI COMPANY | P June 1 | |
| | | | mark Dig | A LOUG MAL | - ANTE | |
| a second | | | 1 10 12 12 10 m | THE PLANT | - 35F | |
| | | | and the second | THE REAL PROPERTY. | in and | |
| | | | and the second second | non Clash | e le prod | |
| 1 Million | 1000 | 1 | | THE SAD | - and the | |
| | - | | | The second | 11 110 | |
| - | 1000 | | and the second | and the second | - | |
| - | 1 | 9 | and a Real | Denne 2, Stone | the second | |
| - | | a la la | | naprimuir | 1 | |
| - | C. C | | and the second second | 11- 11- 15 F | | |
| - | | | and the second s | - It - state - state | 1 3AT | |
| | | | | Santa Santa | 100 | |
| 1 | | | | at and | S. Sala | |
| 1 | | | | and the second | 1 3512 | |
| | | 1 | | | | |
| | | | | anti Carto | - silel | |
| | - | | | | - | |
| 1 | | | | mar all mar | 5 316 | |
| | - | 111 | | and and and | an aller | |

| | Ele | ectronic Mi Fur | LABOMED icroscope with (DI- ided by DBT, Govt. | GIEYE Camera) of India | | |
|----------------|------------|--------------------|---|--|-------------|-------|
| DATE | TIM | ٨E | USER | EXPERIMENT | SIT MATTINE | 0000 |
| U.C. | FROM | TO | USER | oT | Mag | |
| 07th-08-2011 | 10 . 1 SAM | 12.50. | CLASS . & STUDENTS TRAINS | MITOLIC . MOIND MI NOIND MI 2417 TOOS | S. | 6000 |
| 24 - 04-2013 | 1).ISAM | 12.00. | CLASS - X LTUDENTS ANDERION HIS LEHDE, NONGOON | DELENATION OF DOLYTENE UCHRONOPOMES, | Se. | 6000 |
| 37 - 04 - 2014 | IDODAM | 4. 00 рм | Ble. BIDCHOM. | MITOLIS USING ONION ROOT TIPS. | he | Geo |
| 44-04-2014 | 10000 AM | 4.50 pm | BPC. BIOLHEM | RBC LOUNT. | sz | 6000 |
| 11- 08-2014 | 3:00 RM. | | p.h. Q.d.K. | REL GONT | tE. | 90.5 |
| 12-08-2014 | 10:50AM | 11:50 AM | BSc 2nd Yr | RBL LOUNT | Phil | 6100 |
| 18-08-2014 | 2: 12 P.M | 2:30P+ | BBC Engly YA | RBC count | thojings. | Goo |
| 19-08-2014 | 11:00 AM | 11:40AH | BSc Zud Yr | RBC count | Somet | Goo |
| 20-08-2014 | 12.00Pm | 12° 30 Pm | BSL2nd Mn | RBL Gount | Anila | Gaas |
| 1.9.2014 | | | BSERNAYY | WBC count | Brust | Good. |
| 3-9-2014 | 12:55 PM | | Bernd to | WBC count | Brust | Good |
| 3:9:2014 | 1:30Pm | 2:15PH | BSc 2nd Kin | WBC Count | shipting | yood |
| 24/11/2014 | 2: 30 Pm | 3:30 Pm | m BSc 2nd year | ~ Meiosis | d. | Goe |
| 3/12/2014 | 2:30Pm | 3:00Pm | . 4 | Mitosis | g. | 6100 |
| 25/ 04/2015 | 12:00 | 12:45pr | 4 H | WBES Count | startey | 6000 |
| 14/10/2016 | 10:000 | n 1:00 RM | G.G. SYMEN | RBC + UBC Count | gam | Good |
| 15/10/2016 | S: DOPM | 7:30F.M. | G. G. SYNGAL | RBC - UCC Comment | Sthor | - 600 |

- (b) Services provided to other Biotech Hubs/Sr secondary schools: (Please specify the nature of service)
- Organized a Fifteen-Day Training Programme On "Biological Techniques "for the B.Sc. 3rd year Biotechnology students of St. Edmund's College, Shillong.
- 14. Future activities and proposed action plan:
 - Training Programmes will be conducted for enhancing the practical skills of the students.
 - Outreach and Awareness Programmes will be organized for familiarizing students with the fields Biotechnology and Biological Sciences.
 - Publication of Research Papers.
 - > Publication of the 3rd Issue of the Keanean Bio Connect Newsletter.
 - > Invited Lectures by Scientists/Academicians.
- 15. Additional Details
 - (i). Name of the Co-coordinator: Mrs. W. Lyngdoh, Assistant Professor Address: Dept. of Zoology, Lady Keane College, Shillong – 793001, Meghalaya Mobile no.: 09436102535 (M) Email: lyngdohwanda@rediffmail.com
 - (ii). Name of the Co-coordinator: Dr. S. Dohling, Assistant Professor Address: Dept. of Botany, Lady Keane College, Shillong – 793001, Meghalaya Mobile no.: 09863085923 (M) Email: staddohling@yahoo.co.in

Mr. G.G. Syngai Co-ordinator Institutional Biotech Hub Lady Keane College