



Report

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MIPOGRASS Annual Report 2011-2012

H. Lalruatsanga

General Secretary, Mizo Post Graduate Science Society

Mizo Post Graduate Science Society (MIPOGRASS) hi June 10, 1995 khan NEHU, Shillong-ah din a ni a, Registration No. chu S.R. 42/96/MZ-RFZ of 1996 a ni. Mizoram in Science lamah hma a sawn theih nan sorkarah rawtna chi hrang hrang leh thurawnte pein theihtawp a chhuah ve thin a, tûnah hian a hlawhtlinna tam tak kan hmu mək zêl a ni. Kum 2011-2012 chhûnga MIPOGRASS hmalakna leh hnathawh tlângpui report hetiang hi a ni.

HRUAITU

Dt. 20.8.2010-ah I&PR Auditorium-a MIPOGRASS 13th General Conference kan neih khan 2010-2012 hruaitu atân heng mite hi kan thlang -

Office Bearers

President : Dr H. Lalthanzara
Vice President : Dr R. Lalfakzuala
General Secretary: Dr H. Lalruatsanga
Asst. Secretary : Dr K. Lalchhandama
Treasurer : Dr Rosy Lalnunsangi
Finance Secretary: Dr Lalhnutluanga
Anni hian Dt. 2.9.2010 khan charge la nghâlin Appointed Office Bearers, Executive Committee Member leh Adviser atan heng mite an ruat:

Appointed Office Bearers (Secretaries)

- i/c. Information & Publicity:
Pu Vanlalromuana
- i/c. Science Education:
Dr Zodinpuia Pachuau
- i/c. Project : Dr John Zothanzama
- i/c. Seminar & Symposium:
NI R. Lalramengzami
- i/c. Coaching: Pu L.P. Lalduhawma

Committee members

1. Dr F. Lalnunmawia
2. Pu Lalrinmawia
3. Dr Rosangliana
4. Prof Zaithanzauva Pachuau
5. Dr B. Zoliana
6. Dr Lalrokima Chenkual
7. NI Lalramnghaki Pachuau
8. Dr P.C. Vanlalhluna
9. NI Lalchawimawii
10. Pu Aldrin Malsawmtluanga
11. Tv Thanhmingliana
12. NI Lalsangluaii Fanai
13. Dr Nuchhungi Khawlhiring
14. NI Esther Lalhmingliani
15. Tv Lalngura
16. Dr Lalliansanga Pachuau
17. Pu Lalbiakmawia
18. Pu Lalrinthara Pachuau
19. Pu Emanuel Lalkhumbira

20. Dr Saipari Sailo
21. Dr J. Malsawma

Advisers

1. Dr Vanlalzara, *Chief Scientific Officer & Member Secretary*, Mizoram Council of Science, Technology & Environment, Directorate of S & T, Govt. of Mizoram
2. Pu Lalram Thanga, *Principal Secretary to Chief Minister, & Addl. PCCF*, E&F Dept., Govt. of Mizoram
3. Prof. H. Lalramnghinglova, *Head*, Department of Environmental Sciences, MZU
4. Dr R.K. Lallianthanga, *Project Director*, MIRSAC.
5. Pu Ramhluna Hnamte, *Jt. Director*, Department of Higher & Technical Education, Govt. of Mizoram.
6. Dr Tawnenga, *Principal*, Pachhunga University College, Aizawl
7. Dr C. Lalzarliana, *Director*, Agriculture Department, Govt. of Mizoram

Drug Chemistry	1	0	1	
Environmental Sc (FEBES)	14	26	40	
Forestry	4	3	7	2
Genetics	1	0	1	
Geology	16	3	19	6
HAMP	0	3	3	
Health Sciences	1	0	1	
Mathematics	17	6	23	1
Microbiology	0	2	2	
Physics	31	4	35	4
Pharmaceutics	3	1	4	2
Statistics	1	0	1	
Sustainable development	1	0	1	
Veterinary Science	1	1	2	
Zoology	38	35	73	10
Total	213	128	341	38

ACTIVITIES

Hna kal pângngai -

Science Vision: Mizoram Council of Science, Technology & Environment, Directorate of S & T, Govt. of Mizoram hnen aṭanga ṭanpuina kan hmuh avangin kum 2001 aṭanga vawiin thlengin tluang takin MIPOGRASS official journal, *Science Vision* chu tihchhuah chhonzawm zel a ni a. Dt. 10.11.2009 khan National Centre for ISSN, NISCAIR, aṭangin International Standard Serial Number 0975-6175 (Print) a nei ve ta a. Mizoram aṭanga a hmasa ber niin hmasawna hmêl kan hmu zel a. Hemi mai bakah Dt. 16.11.2010 khan ISSN (online no 2229-6026) kan hmu leh bawk a ni. *Science Vision* hminga website www.sciencevision.org hi tlawh theih reng a ni ta. scivismipo@gmail.com ah e-mail thawn theih reng a ni bawk. He website-ah hian *Science Vision* bakah MIPOGRASS chanchin te târlan vek a ni a. MIPOGRASS official website a ni nghal bawk a, a tam thei ang tlawh

COMMITTEE MEETING NEIH ZAT

Executive Committee	-	vawi	6
O.B. Committee	-	vawi	3

MEMBER

Member Statistics (as on 1.8.2012)

Department	m	f	Total	PhD
Agriculture Science	2	0	2	
Biochemistry	3	0	3	1
Biotechnology	3	7	10	
Botany	37	29	66	8
Chemistry	36	8	44	4
Computer Sciences	2	0	2	
Disaster Mitigation	1	0	1	

turin member-te kan inngen nghâl bawk a ni.
Kum 2010-12 chhûnga *Science Vision* Editorial
Board te –

Editor-in-Chief : Dr K. Lalchhandama,
Editors : Dr B. Zoliana,
Prof Zaithanzauva
Pachau,
Dr Lalthakimi Zadeng,
Dr Zodinpuia Pachau,
Dr R. Lalrempuia,
Dr K. Pachhunga,
Mr Laltanpuia,
Mrs F. Laldinpuii,
Dr L.N. Tluanga,
Dr R. Lalfakzuala,
Prof R. Lalthantluanga,
Dr F. Lalnunmawia,
Dr G. Rosangkima,
Dr Lalrokima Chenkual,
Dr Victor Zochhuana,
Dr H. Lahlhenmawia

Managing Editor: Dr H. Lalthanzara
Production Asst : R Lalnunmawia
(Office Assistant)

Coaching Class: Kum 2001 atangin kum
tin Class XII (Sc) drop-out-te chhanchhuah
nan Morning Coaching Class buatsaih thin a
ni a. Kumin pawh hian Secretary i/c Coach-
ing, Coordinator ni bawk Pu L.P. Laldu-
hawma kaihhrainain kalpui mêk a ni. He
Coaching class hi Central lam pawhin MI-
POGRASS a hmelhriat vena tak pawh a ni a,
2009 atang khan Central Social Welfare
Board chuan State Social Welfare Board kal
tlangin Condensed Course of Education
Scheme kalpui turin min thlang ve a, sum leh
paia anni tanpuina nen waviin thlengin tluang
takin kan la kal thei a ni.

Biodiversity Cell: Biodiversity Cell kan
neih mek hi la kalpui zêl tha kan ti a, kum
2010-2012 atân hetiangin chanvo inruat thar a
ni:

Chairman : Dr H. Lalthanzara
Secretary : Dr Lalramliana
Members : Dr K. Lalchhandama,

Dr H.T. Lalremsanga,
Dr P.C. Vanlalhluna
leh OB te.

Executive Committee chuan ramngaw leh
nungchate venhim leh he lam hawia a tûl ang
anga hma la turin Biodiversity Cell hi a beisei
a ni. Anni hian sawrkarah rawtna thlen tur
leh hmalâkna turte ruahmanin sawrkarah an
thehlut tawh a ni.

Hma lakna dang

Science education campaign at PU Col-
lege: Mizoram Council of Science, Technol-
ogy & Environment puihnain Dt. 30.9.2011
khan Pachhunga University College Audito-
rium-ah Science Education Campaign hman a
ni. He hunah hian PU College leh GZRSC a
science zirlaite thahnem tak an tel; Dr K.
Pachhunga, *Associate Professor*, Lunglei Govt.
**College in “Problems and solution of chemis-
try education in Mizoram” tih sawiin Dr Zo-
dinpuia Pachau, Asst. Professor**, Mizoram
University hnen atangin **“Prospects and
promises of Chemistry education”**
ngaihnawm tak kan ngaithla bawk.

Science education campaign at Saikuti
Hall, Lunglei: Mizoram Council of Science,
Technology & Environment puihna leh Lun-
glei Govt. College nena tang kawpin
21.10.2011 (Friday) khan Saikuti Hall, Lun-
gleiah Science Education Campaign buatsaih
leh a ni. He hunah hian Lunglei khawpuia
school hrang hrang leh college-a science stu-
dent-te hnenah science education chungchang
zirtirna hun hlawhtling takin kan hmang.

Proceedings tihchhuah thu: MI-
POGRASS official organ, *Science Vision*-ah
supplementary issue turin proceedings of Na-
tional Conference on Mathematical Sciences
(Dt. 24-25 November 2011) leh Proceedings
of the National Seminar on Emerging trends
in Biosciences and Future Prospects (Dt. 29-
30 November 2011) tihchhuah ani..

MIPOGRASS registration buai chungchâng: Lehkhaa indâwrna kal fuh lo vanga Firms & Societies, Govt. of Mizoram-a kan registration hman lai No. S.R. 42/96/MZ-RFZ of 1996 buai kan beih lêt chungchângah **thuremna, Civil Judge No. 5 'Judgement and Order (dated 1.8.2011)' chu kan dawng a, he order-ah hian Court-in MIPOGRASS registration chu a tinung leh ta tih târlan a ni; kan lâwm em em a ni.**

Project on Environment Impact Assessment: Mizoram Sorkarin Tuirial hmuna bawlhhlawh paihna a siam hi felfai taka kalpui a nih loh avangin MIPOGRASS chuan he thilin environment a nghawng dân hi uluk taka zirchian tûl a ti a, pâwl hminga hma la turin hetiangin mi kan inruat -

Convener : Dr John Zothanzama
Member : Dr R. Lalfakzuala
Dr Zodinpuia pachuau
Dr P.C. Vanlalhluna
Ms Esther Lalhmingliani

Anni hian project proposal-te siamin Mizoram Council of Science, Technology & Environment, Directorate of S&T, Govt. of Mizoram atanga sum kan hmuh Rs. 100,000/- hmangin hna an thawk tan mawlh mawlh a ni. Anni hmalâkna hian Tuirial dumping site-ah air sampling leh analysis kar tin neih a ni a, water analysis pawh thla tin kalpui mêt a ni. Tin, soil sampling pawh mumal taka kalpui niin laboratory lamah la zirchian turin buaipui mêt a ni bawk.

Office tihchangtlunna: Office a kan computer hman lai hi a hlui deuh tawh avang leh duh khawp lohna a awm avangin Executive Committee rêt angin desktop computer thar **'Lenovo' lei a ni a, hemi rual hian broadband** internet connection thar lâk nghâl a ni. Heng facilities-te hi kan zavaia ta a nih angin office hour chhûngin member tu pawhin hman theih a ni e. Heng bâkah hian office-a hman tur plastic chair with cushion, Rs 1,500/- zelin 10 nos lei a ni bawk.

ISBN leh Publication Board chungchâng: Raja Rammohun Roy National Agency for ISBN, MHRD, GOI, New Delhi atanga **'Allotment of Publisher's identifier under ISBN system' (Category 5/2012-** ISBN of 29/4/12) kan hmuh chu mumal taka kalpui a nih theih nan hetiangin Publication Board insiam a ni -

Chairman : Dr H. Lalthanzara
Secretary : Dr K. Lalchhandama
Members : Prof Zaithanzauva Pachuau
Dr Zodinpuia Pachuau
Dr F. Lalnunmawia

SOCIETY HMINGA FEHCHHUAHNA

1. MZU Campus, Aizawlah thawh hona chungchâng sawi hovin Ahmedabad atanga local National Innovation Foundation official te nena inkawm hona (Dated 12th September, 2011)-ah pâwl aiawhin Dr R. Lalfakzuala, Dr Rosy Lalnunsangi leh Dr John Zothanzama te an tel.
2. September 1, 2011 khan STAM-in an pawl din cham an lawmnaah min sâwm angin Dr H. Lalruatsanga G/S leh Pu R. Lalnunmawia O/A te an tel.
3. Dt. 20.10.2011 khan Deptt. of Science and Technology atanga sâwmna kan **hmuh angin Stakeholders' Consultation** Workshop of Mizoram Climate Change Action Plan-ah MIPOGRASS aiawhin Dr John Zothanzama, Tv Vanramliana leh Dr F. Lalnunmawia te an tel.
4. Rural Technology Action Group (RUTAG), North East buatsaih seminar hmangin kan Secretary i/c project Dr John Zothanzama a kal. RUTAG nen hian thawk hova project siam turin hma lak mêt ani.
5. Krismas/kum thar chawlh te kan hman hnuin January 16, 2012 khan hunserh nen kumin atân office hawn a ni a, December 18, 2012 ah Krismas chawlh hman leh tan a ni ang.

6. Dt. 24th February, 2012 khan Mizoram Council of Sciences huaihawt DDK-ah National Science Day puala panel discussion neihah MIPOGRASS aiawhin Dr R. Lalfakzuala, NI Esther Lalhmingliani leh Dr Nuchhungi Khawlhiring te an tel.
7. Shiksha Bharti Puraskar lamman dawng tura min rawtna bawhzuiin All **India Achievers' Foundation hnenah** society profile leh t̄ul dangte thawn a ni.

MEMBER-TE HLAWHTLINNA

I. Kum 2011- 2012 chh̄ungin heng a hnuai a kan member-te hian PhD an hmu thar a, kan lawmpui em em a ni.

Hming : J. Malsawma
 Title : *Magnetostratigraphic Study of the Bhuban Formation (Surma group) around Aizawl, Mizoram*

University: Deptt. of Geology, Mizoram University

Hming : Lalmuanpuia
 Title : *Study of the Optical Properties of Solids by Using Full Potential Linear Augmented Plain Wave (LAPW) Method.*

University: Deptt. of Physics, Mizoram University

Hming : T.C. Lalhriatpuii
 Title : *Phytochemical and Pharmacological Evaluation of Selected Medicinal Plants of Mizoram*

University: Deptt. of Pharmaceutical Sciences, Dibrugarh University

Hming : V. Vanthangliana
 Title : *Petrogenetic Evolution of the Pre-Cambrian Basement Rocks of the Area Around Sonapahar, West Khasi Hills Districts of Meghalaya*

University: Deptt. of Geology, Mizoram University

Hming : Jimmy Lalnunmawia
 Title : *Petrochemistry of Granulites in the Vicinity of Dumka Town, Jhark-*

hand

University: Deptt. of Geology, Mizoram University

Hming : Lallawmkimi
 Title : *Studies on Floristic Diversity of Tawi Wildlife Sanctuary in Aizawl District of Mizoram*

University: Deptt. of Environmental Sciences, Mizoram University

Hming : Nuchhungi Khawlhiring
 Title : *Development of Agro-Techniques of Anthurium andreanum Lind Suitable for Mizoram condition*

University: Deptt. of Forestry, Mizoram University

Hming : Lalchawimawii Ngente
 Title : *Phytochemical Investigations of Selected Ethno-Medicinal Plants of Mizoram*

University: Deptt. of Forestry, Mizoram University

Hming : Lalchhingpuii
 Title : *Status of Water Quality of Tlawng in the Vicinity of Aizawl City, Mizoram*

University: Deptt. of Environmental Sciences, Mizoram University

II. MIPOGRASS Executive Committee member NI. Lalsangluaii Fanai chuan CSIR-UGC buatsaih NET (JRF) in Life Sciences a tling a, NI Grace Lalawmpuii leh Lalhmun-sangi ten NET-JRF in Environmental Science an tling baw a, kan lawmpuiin kan chhuang em em ani.

III. Kan hriat theih chinah 2011-12 chhungin kan member a hnuai a mite hian Mizoram Public service Commission hnuai ah civil services an zawm thar a, kan chhuang em em ani.

C. Laltleipuii MCS
 [MF&AS a lo zawm tawh baw]
 Lalremruata Kullai MCS
 Vanlalrova MCS
 Dr. Lalmuanpuia MF&AS

LAWMTHU

MIPOGRASS tluang taka kan kal theih nana a office building a thlawna min luahtir rengtu Pi Nuntharmawii w/o (Late) M. Dawngliana, Mission Veng te chungkaw chungah thlung takin lawmthu kan sawi leh a ni. Anni chhungkua hian Mizoram a science & technology hmasawna tura an thawh ve-ah ngaiin phal takin engmah beisei let lovin an in min luahtir reng a, vannei kan inti em em a ni.

Tin, Mizoram Council of Science, Technology & Environment, Directorate of S & T, Govt. of Mizoram chungah tluang taka *Science Vision* tihchhuah nan suma min tanpui thin avangin lawmthu kan sawi tak meuh a ni. Kan chanchinbu bakah seminar, research project leh media programme hrang hrangah min chhawmdawl reng bawk a ni.

A tawp berah chuan waviin thlenga MIPOGRASS tluang taka min kaihruaitu kan Pathian chungah lawmthu kan sawi a; Mizoram in science lama hma a sawn zel theih nan member-ten theihtawp i chhuah zel ang u.

[2012 General Conference-a General Secretary Report]



MIPOGRASS elected OBs for 2010-12: [from left] Dr R. Lalfakzuala, Dr H. Lalthanzara, Dr H. Lalruatsanga, Dr K. Lalchandama, Dr Rosy Lalnunsangi, Dr Lalnuntluanga

It must be irrevocably confessed that Darwin was wrong

But only in the sense that the Figure 2.1. in the (worst selling) book *A Brief History of Science* authored by some compulsive miscreant depicts an inadvertently wrong illustration. Hence it is corrected thus

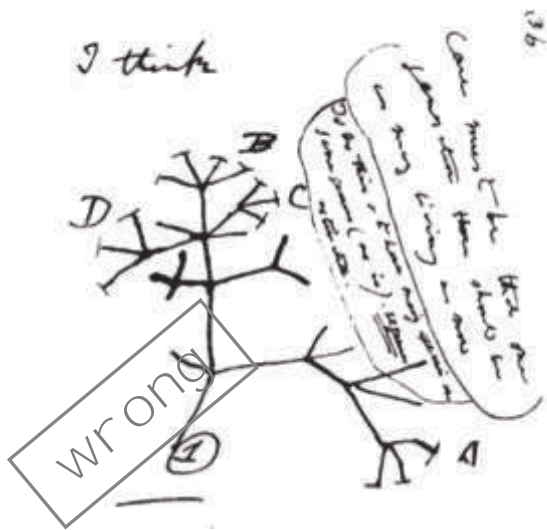


Figure 2.1. The Tree of Life as imagined by Darwin; the only figure in the *On the Origin of Species*.



Figure 2.1. The Tree of Life as imagined by Darwin; the only figure in the *On the Origin of Species*.

As the maxim goes: to err is human, to forgive unnecessary
The author claims no meddling of the hand of God; it was just callousness

Therefore, it is regrettable that

A Brief History of Science

By K. Lalchandama

is still available at

EL PEE BOOK STORE

Bara Bazar, Aizawl

☎ 2327672/9862580422



Instructions to Authors

Science Vision is a quarterly, bilingual, refereed, official journal of the Mizo Post-Graduate Science Society. All kinds of information, both solicited and unsolicited, from all fields of science are published in the form of original research, research review, general article, hypothesis, commentary, report, letters and news. Manuscripts are accepted on the basis of credibility and suitability as per the style and scope of the journal.

Manuscript can be prepared either in Mizo or in English. All texts should be in MS Word (.doc/docx). There should not be any decorative borders, fonts, lines, indents and tabs anywhere. Tables and figures should come in separate pages at the end, and numbered consecutively as they are referred to in the text.

The title should be concise and plain, and the title page must contain full name(s) of the author(s), with complete mailing address of affiliation(s)/institute(s). In a multi-authored paper, the corresponding author should be marked with asterisk (*) after the name, and he/she must provide e-mail, and telephone/fax/mobile numbers.

Manuscripts containing original research and research review are subjected to peer review process. Original research can either be in full length or in short note articles. All original research should be necessarily written in English for the purpose of unanimity and should fill no more than 5 pages.

The text for original research should be divided sequentially into Title page, Abstract, Introduction, Materials and Methods, Results, Discussion, and References. Abstract should be limited to 200-300 words for full length article, and to 100-200 for short article. Abstract should be accompanied by key words arranged in alphabetical order. Experiments involving animals or humans and clinical trials should not violate any ethical standard, and a declaration in this respect should be mentioned in the Materials and Methods.

References should be each numbered in consecutive Arabic numerals in superscripts in the text in the order of their appearance, and entry in the reference list should be in analogy to the following examples:

1. Journal: Pachuau Z, Zoliana B, Zadeng L & Thapa RK (2003). Photoemission from surfaces of metals. *Sci Vis*, 3, 17-19.
2. Book: Lalramnghinglova H (2003). State-of-the-art report on ethnomedicines and their plant resources in Mizoram. In: *Ethnomedicine of North-East India* (G Singh, HB Singh & TK Mukherjee, eds), NISCAIR, CSIR, New Delhi, India, pp. 1-62.
3. Internet: Hopkin H (2004). Ancient ape gives clue to family origin. *news.nature.com/news* (18 November 2004).

Research review shall follow the organization as that of original research, excepting Materials and Methods and Results, which can be replaced with appropriate headings for the topic under discussion.

The manuscript should strictly adhere to internationally agreed rules of scientific nomenclature such as those adopted by the International Union of Pure and Applied Chemistry (IUPAC), the international system (SI) of units, and the International Code of Botanical/Zoological Nomenclature (ICBN/ICZN). Names of organisms should include the full binomial, authority, and family in the first reference in the body of the manuscript (e.g. *Homo sapiens* Linnaeus or L.; family Hominidae).

Submission is recommended through the e-mail: scivismipo@gmail.com. Submission will be taken to imply that it has not been published previously or concurrently submitted elsewhere, and that all authors have consented to its publication.

Manuscript not conforming to these instructions shall be summarily rejected.

Though there are no page charges for ordinary text, ₹ 200/- per page is levied for coloured pages (containing special figure/table/text) to be paid upon acceptance.



MIPOGRASS CONFERENCE 2012

A jubilant General Conference cum Seminar was organized on 24 August at Pi Zaii Hall, Synod Conference Center. One of the most successful conferences in the past years, about 130 members participated.

The seminar theme was 'State Level Seminar on Clean Energy Option and Nuclear Safety' to commemorate the United Nations' International Year of Sustainable Energy 2012. A keynote address was delivered by Dr Vanlalzara, Adviser & Chief Scientific Officer, Directorate of Science and Technology. The main theme speaker was Aldrin Malsawmtluanga, Scientific Officer, Mizoram Science Centre. A technical report was deliberated by Dr B. Zoliana.

Election was conducted by the Mizoram **Journalists' Association for the term 2012-2014**, and posts were organized as follows:

Dr H. Lalthanzara	<i>President</i>
Dr R. Lalfakzuala	<i>Vice Preseident</i>
Dr K. Lalchhandama	<i>General Secretary</i>
Dr H. Lalruatsanga	<i>Asst Secretary</i>
Dr Rosy Lalnunsangi	<i>Treasurer</i>
Dr Zodinpuia Pachuau	<i>Finance Secretary</i>

[The new office bearers have taken their charges]

The conference was ended with a grand dinner.

OFFICE BURGLED

We hardly have bad news. But our office was ransacked on the night of 19 September and burgled by a habitual rogue. He managed to snatch away our PC set with modem. But thanks to the energetic police patrols, especially at the Kulikawn outpost, the crook was captured in no more than a week, with our equipments fully recovered.

Kudos to our police officers.

MIPOGRASS PUBLICATION

Raja Rammohun Roy National Agency for ISBN, Government of India, has allotted **MIPOGRASS a publisher's identification** (International Standard Book Number, ISBN). We are authorized to publish 10 books in a year. The Executive Committee has constituted a Publication Board. Guidelines are available at the MIPOGRASS office.

We can now publish study materials, theses, reports, academic books, proceedings, popular books, compilations, etc. related to science and technology.

However, MIPOGRASS does not and cannot provide financial assistance, or claim marketing benefits.

PROFESSOR IN OUR MIDST

Our Executive Member Dr Zaithanzauva Pachuau, Department of Physics, Mizoram University, has been duly promoted to a Professor. We heartily congratulate the now Prof Zaia.

FRESH DOCTOR

K. Vanlaldinpuia, of Durtlang Leitan, has been recently awarded PhD degree from North Eastern Hill Univeristy, Shillong, on **his thesis titled 'Sugar Derived Stereoselective Catalysts and their applications in Organic Synthesis.'** **Our sincere congratulations.**

OFFICE ASSISTANT SERVICE AND DUTIES

The Executive Committee (in its meeting on 28 June) has formalized the service and nature of duties of the OA. The scale of salary has also been raised to Rs. 3,000/- pm from July.