





Indian Council of Social Science Research (ICSSR) Sponsored Research Methodology Course on Advanced Data Analytics in Multidisciplinary Research using R Language (1st - 11th August, 2023)

Organized by

Department of Education, Department of Statistics, Department of Tourism Management Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh – 484887

Lr.No. IGNTU/RMC/2023/13 Date: 14/07/2023

To

Honey Soni Department of Commerce Dr. Hari Singh Gour University, Sagar

Dear Participant,

Sub: IGNTU-ICSSR sponsored Ten Days Research Methodology Course - Offer Letter to participate - Reg.

I am so pleased to share with you that the Department of Education, Department of Statistics and Department of Tourism Management jointly organizing the ICSSR sponsored Research Methodology Course on Advanced Data Analytics in Multidisciplinary Research using R Language during $I^a - II^b$ August, 2023 at Indira Gandhi National Tribal University, Amarkantak, MP (Offline mode).

I am happy to inform you that you have been selected to participate in the above said course. In this connection, you are requested to confirm your participation through email ignturmc2023@gmail.com on or before 16.7.2023 @ 5 PM.

It is also informed that, you are required to submit the relieving order from your parent institution before the start of the course, without which you are not allowed to attend the course.

The TA will be given subject to a maximum of Rs.1000/- per participant (Up and Down) as per ICSSR rules subject to production of original tickets. No local conveyance would be reimbursed. Accommodation may provide from 31.07.2023 6 PM onwards to 11.8.2023 6 PM.

I request you to share your journey details (Up and Down) at the earliest to ignturmc2023@gmail.com.

Note: You are compulsorily requested to carry your own Laptop for the course.

Thanking you,

Sincerely,

(Prof. M.T.V. Nagaraju)

Course Director

Contact for further information if any,

Dr. S. Balaswamy (Co-course Director, Mobile: 9100539430)

Dr. Jayaprakashnarayana G (Co-course Director, Mobile: 9963611676)



DEPARTMENT OF COMMERCE

Dr. Hari Singh Gour Vishwavidyalaya, SAGAR (M.P.) 470 (7)3 ('A Grade University Accredited by National Assessment and Accreditation Council) (Central University)

क. वाणिज्य / २०२३/५। 😏

दिनांक २७/१/२०

Relieving Letter

To.

The Course Director

Department of Education, Statistics and Tourism Management

Indira Gandhi National Tribal University, Amarkantak (M.P.)

Subject: Relieving Letter

Reference: Your formal invitation letter to participate in ICSSR Sponsored Ten Days Research

Methodology Course by e-mail, Dated- 14th July, 2023.

This is in reference cited above, Ms. Honey Soni (Y21481008), Research Scholar, Department of Commerce, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.) will be hereby relieved from the department from 1st – 11th August, 2023 to attend the aforesaid course on "Advanced Data Analytics in Multidisciplinary Research using R Language" organized by Department of Education, Statistics and Tourism Management IGNTU, Amarkantak M.P. (1st - 11th August 2023). She may be relieved on 11th August, 2023 to join the parent department.

Head of the Department
प्रोपोसर एवं अध्यक/Professor and Head
वाणिक्य किमाग/Department of Commerce
स्रोदर हरीरिंड गीर विश्वविद्यालय स्थार (मध)
Doctor Hari Singh Gour Vishmavidyalaya, Sagar (N.P.)

Copy to:

 Ms. Honey Soni, Research Scholar, Department of Commerce, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.)









Indian Council of Social Science Research (ICSSR) Sponsored Research Methodology Course on Advanced Data Analytics in Multidisciplinary Research using R Language (1st – 11th August, 2023)

Department of Education, Department of Statistics, Department of Tourism Management Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh – 484887

Lr. No. IGNTU/ICSSR/RMC/2023/ 13

Date: 11/08/2023

ATTENDANCE CERTIFICATE CUM RELIEVING ORDER

This is to certify that .. Honey Son Research Scholar, Department of Commerce, Dr. Hauernah Crown Vertruovidyolaya, Sagar (M.P) - 470003 has participated in the ICSSR Sponsored Research Methodology Course on Advanced Data Analytics in Multidisciplinary Research using R Language during 1st - 11th August, 2023 organized by Department of Education, Department of Statistics and Department of Tourism Management Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh and he/she is relieved on 11th August, 2023 at 6PM.

Thanking you,

Sincerely

Contact for further information if any,

Dr. S. Balaswamy (Co-course Director, Mobile: 9100539430)

Dr. Jayaprakashnarayana G (Co-course Director, Mobile: 9963611676)

Course Directo

No: ICSSR/IGNTU/RMC/2023/13









ICSSR Sponsored Research Methodology Course on

ADVANCED DATA ANALYTICS IN
MULTIDISCIPLINARY RESEARCH USING R LANGUAGE

1-11 August, 2023

CERTIFICATE

This is to certify that Ms. Honey Soni, Research Scholar, Department of Commerce, Dr. Hari Singh Gour University, Sagar, Madhya Pradesh, has participated in ICSSR Sponsored Ten Days Research Methodology Course on 'Advanced Data Analytics in Multidisciplinary Research using R Language' organized by the Department of Education, Department of Statistics, and Department of Tourism Management, Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh and successfully completed the course.

Dr. S. Estasmamy
Co-course Director
Assistant Professor,
Dept. of Statistics
IGNTU, Amarkantak M.P.

Dr. Jayaprakashnarayana G
Co-course Director

Assistant Professor,
Dept. of Tourism Management
IGNTU, Amarkantak M.P.

Prof. M. V. Nagarusa Course Director Dean, Faculty of Education IGNTU, Amarkantak M.P.



INDIRA GANDHI NATIONAL TRIBAL UNIVERSITY, AMARKANTAK (M.P.)

TEN DAYS RESEARCH METHODOLOGY COURSE ON ICSSR SPONSORED







Social Science Research Indian Council of

MULTIDISCIPLINARY RESEARCH USING R LANGUAGE

ADVANCED DATA ANALYTICS IN

(1 to 11 August, 2023)



Department of Education Department of Statistics

Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh Department of Tourism Management

> Dr. S. Balaswamy Co-Course Directors

Departmet of Tourism Management Dr. Jayaprakashanarayana G. IGNTU, Amarkantak (M.P.) Assistant Professor

IGNTU, Amarkaantak (M.P.) Department of Statistics **Assistant Professor**

使勤养培养 医检查体 培养 勤龄 医使勤养培育 医外皮体 伯克 勤苦使勤养培者 医外皮体 培养 勤龄 皮体勤养培者 医粉皮性动物 法人 医外皮性动物 经营销费 经产品 医水皮性 语言 第一层级 诗法 University, Amarkantak (M.P.

Indira Gandhi National Tribal Dean, Faculty of Education Course Director Prof. M.T.V.Nagaraju

DEPARTMENT OF COMMERCE DR. HARISINGH GOUR VISHWAVIDYALAYA, SAGAR (M.P.)

PARTICIPATION REPORT

Ten Days Research Methodology Course

On

"Advanced Data Analytics in Multidisciplinary Research using R Language" (Sponsored by ICSSR, New Delhi)

Date: 1st to 11th August, 2023

Organized by:

Department of Education

Department of Statistics

Department of Tourism Management

Indira Gandhi National Tribal University, Amarkantak (M.P.)

Course Director

Co-Course Directors

Prof. M.T.V. Nagaraju

Dr. S. Balaswamy

Dr. Jayprakashnarayana G

Dean, Faculty of Education

Assistant Prof. of Statistics

Assistant Prof. of Tourism Management

Participant:

Name- Honey Soni (Research Scholar)

Reg.No. Y21481008

Department of Commerce

Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.)

Date of application for the Participation: 30/06/2023

Reliving form the parent dept.: 01/08/2023

Rejoin in the parent dept.: 14/08/2023

Course objectives:

- 1. To discuss the philosophy and publication ethics of the research.
- 2. To generate knowledge on research tool construction and its validation.
- 3. To explain the importance of parametric, non-parametric, and multivariate statistical techniques in social science and other allied disciplines.
- 4. To provide hands on training using statistical software like SPSS and R Language.
- 5. To explore the new reforms in the software tools for plagiarism detection and writing of the research report.

Schedule of the Programme

Date/ Session	1 st Session	2 nd Session	3 rd Session	4 th Session
01/08/2023	Inaugural Session Resource Person: Honourable vice- chancellor of	Resource Person: Prof. D.K. Dey Topic: Designing of sampling techniques for social science	Resource Person: Dr. Vinod Sen Topic: Research topic selection and objective framing	Resource Person: Prof. G.B.S. Johri Topic: Research methods and approaches
	IGNTU Prof. Shri Prakash Mani Tripathi,	research	objective framing	
Lecture Summary	The Inaugural session has been started in the presence of the honourable vice-chancellor of IGNTU Prof. Shri Prakash Mani Tripathi, Prof. M.T.V. Nagaraju, Prof. D.K. Dey, and other faculty members.	Dr. Dey taught us the value of numbers in statistics. He has discussed various sampling techniques that we use in social science research.	Dr. Vinod has discussed how to select and frame research topics and objectives for our study. He has also explained how to identify research problems.	Prof. Johri has explained the various research methods and approaches by which we try to find the truth of any phenomenon and answer the problem.
02/08/2023	Resource Person: Dr. Ramesh M Topic: Validity and trustworthiness of research	Resource Person: Prof. G.K. Rout Topic: Research tools	Resource Person: Dr. Sanjeev Bakshi Topic: Introduction to statistical software for handling data	Resource Person: Dr. Sanjeev Bakshi Topic: Practical session of statistical software

Lastures	Dr. Damach has	Duof Dout has	De Dolrahi haa	Cin has mayidad
Lecture	Dr. Ramesh has	Prof. Rout has	Dr. Bakshi has	Sir has provided
Summary	explained how we	explained the basics	introduced the basics	hands on training on
	will measure the	of research & its	of SPSS and R	R using different
	validity and	types, variables,	language. In which	statistical tests such
	trustworthiness of	research tools, and	he has demonstrated	as t-test, ANOVA,
	our research.	measurement scales.	some practical	Correlation,
			problems.	Regression etc.
03/08/2023	Resource Person:	Resource Person:	Resource Person:	
03/00/2023	Dr. Samson R	Dr. Samson R Victor	Dr. Akash Ranjan Singh	
	Victor		Topic:	
		Topic:	_	
	Topic: MOOCS	Learning	Statistics and its uses in medical sciences	
		Management System		
Lecture	Dr. Samson has	Sir has explained	Dr. Akash has explain	ed about the research
Summary	discussed all	about various	process, research writing and types of	
	about the	statistical software	distribution (parametric & non-parametric)	
	MOOCS platform	like SPSS, Gnomio,	in the hospital and heal	thcare setting.
	and explained	Jamovi.	1	C
	how we can create			
	our own content			
0.410010000	platforms.			
04/08/2023	Resource Person:	~ .	Resource Person:	Resource Person:
	Prof. Ranjan Kumar Sahoo		Dr. Charles Varghese	Dr. Balaswamy
	Topic:		Topic:	Topic:
	Parametric and Non-parametric data		Ethnographic studies	Data analysis using
	I arametric and Non	i-parametric data	Eumograpine studies	Data allalysis using
	techniques	i-parametric data	Ethnographic studies	R
		-parametric data	Ethnographic studies	
Lecture	techniques	ught us the importance	Sir has given lecture	
	techniques Prof. Sahoo has tar		Sir has given lecture	R Sir has taken
Lecture Summary	Prof. Sahoo has tar of data in statistic	ught us the importance s and discussed about	Sir has given lecture on "Doing critical	R Sir has taken practical session on
	Prof. Sahoo has tar of data in statistic various parametric	ught us the importance s and discussed about and non-parametric	Sir has given lecture on "Doing critical ethnography: some	R Sir has taken
	Prof. Sahoo has tar of data in statistic various parametric techniques, sampl	ught us the importance s and discussed about	Sir has given lecture on "Doing critical	R Sir has taken practical session on
Summary	Prof. Sahoo has tar of data in statistic various parametric techniques, sampl errors etc.	ught us the importance s and discussed about and non-parametricing & non-sampling	Sir has given lecture on "Doing critical ethnography: some reflections"	R Sir has taken practical session on R language.
	Prof. Sahoo has tar of data in statistic various parametric techniques, sampl errors etc. Resource Person:	ught us the importance s and discussed about and non-parametric ing & non-sampling Resource Person:	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person:	R Sir has taken practical session on R language. Resource Person:
Summary	Prof. Sahoo has tar of data in statistic various parametric techniques, sampl errors etc. Resource Person: Dr. Sankar Reddy	ught us the importance s and discussed about and non-parametric ing & non-sampling Resource Person: Dr. Sankar Reddy	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg
Summary	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle	ught us the importance s and discussed about and non-parametricing & non-sampling Resource Person: Dr. Sankar Reddy Kolle	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic:	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic:
Summary	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic:	right us the importance is and discussed about and non-parametric ing & non-sampling Resource Person: Dr. Sankar Reddy Kolle Topic:	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on
Summary	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-	ught us the importance s and discussed about and non-parametricing & non-sampling Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic:	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection
Summary	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic:	right us the importance is and discussed about and non-parametric ing & non-sampling Resource Person: Dr. Sankar Reddy Kolle Topic:	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on
05/08/2023	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training	right us the importance is and discussed about and non-parametric ing & non-sampling Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools
Summary 05/08/2023 Lecture	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training Dr. Kolle has	rught us the importance is and discussed about the and non-parametric ing & non-sampling and non-sampling when the Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources Sir has taken a	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles Dr. Garg has	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools Sir has
05/08/2023	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training Dr. Kolle has introduced various	right us the importance is and discussed about and non-parametric ing & non-sampling Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources Sir has taken a practical session on	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles Dr. Garg has discussed about three	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools Sir has demonstrated
Summary 05/08/2023 Lecture	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training Dr. Kolle has	right us the importance in and discussed about and non-parametric ing & non-sampling Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources Sir has taken a practical session on E-resources in which	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles Dr. Garg has	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools Sir has demonstrated various plagiarism
Summary 05/08/2023 Lecture	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training Dr. Kolle has introduced various	right us the importance is and discussed about and non-parametric ing & non-sampling Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources Sir has taken a practical session on	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles Dr. Garg has discussed about three	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools Sir has demonstrated
Summary 05/08/2023 Lecture	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training Dr. Kolle has introduced various e-resources that	right us the importance in and discussed about and non-parametric ing & non-sampling Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources Sir has taken a practical session on E-resources in which	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles Dr. Garg has discussed about three "RRR" which refers	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools Sir has demonstrated various plagiarism
Summary 05/08/2023 Lecture	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training Dr. Kolle has introduced various e-resources that we can use in our	Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources Sir has taken a practical session on E-resources in which we have done some practical work related	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles Dr. Garg has discussed about three "RRR" which refers to Resources,	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools Sir has demonstrated various plagiarism detection tools,
Summary 05/08/2023 Lecture	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training Dr. Kolle has introduced various e-resources that we can use in our	Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources Sir has taken a practical session on E-resources in which we have done some practical work related to accessing e-	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles Dr. Garg has discussed about three "RRR" which refers to Resources, Research, and	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools Sir has demonstrated various plagiarism detection tools, software and
Summary 05/08/2023 Lecture	Prof. Sahoo has tar of data in statistic various parametric techniques, samplerrors etc. Resource Person: Dr. Sankar Reddy Kolle Topic: Library and E-library training Dr. Kolle has introduced various e-resources that we can use in our	Resource Person: Dr. Sankar Reddy Kolle Topic: Practical Session on E-resources Sir has taken a practical session on E-resources in which we have done some practical work related	Sir has given lecture on "Doing critical ethnography: some reflections" Resource Person: Dr. Mohit Garg Topic: Resources and referencing styles Dr. Garg has discussed about three "RRR" which refers to Resources, Research, and	R Sir has taken practical session on R language. Resource Person: Dr. Mohit Garg Topic: Practical session on plagiarism detection tools Sir has demonstrated various plagiarism detection tools, software and

07/08/2023	_	ssion analysis using	Resource Person: Dr. R. Vishnu Vardhan Topic: Univariate and multivariate graphical	
Lecture Summary	tool have to be use		Sir has given lecture on "Statistician: The Data Doctor". In this, he has explained about real time data analysis, univariate and multivariate graphical procedures using R.	
08/08/2023	regression on R. Resource Person: Dr. Sanjeev Bakshi Topic: Practical session on R language		Resource Person: Prof. Shamim Ahmad, Dr. Anil Kumar Tamta Topic: Presentation	
Lecture Summary	Dr. Bakshi has taken practical session on R and explained which tool has to be used in the research study with some examples.		All the students have given his/her power point presentation on any specific topic according to their area of interest.	
09/08/2023	Resource Person: Dr. Biswajit Patra Topic: Univariate and mult	ivariate Analysis	Resource Person: Prof. Raksha Singh Topic: Research ethics	Resource Person: Prof. M.T.V. Nagaraju Topic: E-content development
Lecture Summary	Dr. Patra has discussed various data type and time series analysis. He has also taught how we can analyze univariate and multivariate date using R software.		Prof. Raksha has explained all about research and publication ethics with some case studies.	Prof. MTV has discussed about E-content development that how and why we should create our e-content.
10/08/2023	Resource Person: Dr. N. Srinu Topic: E-views		Resource Person: Prof. M. Rabindranath Topic: Role of media in social science research	Field visit Dr. JP Narayana G
Lecture Summary	Dr. Srinu has introduced all about E-Views and given hands on experience on that.		Sir has discussed the importance of media in social science research.	Library and campus visit.
11/08/2023	Test Practice on R Dr. Balaswamy Dr. Balaswamy		Chief Guest: Shri Guntha Laxman Valedictory Session	

Lecture	We have given	Queries	and	doubt	Valedictory session has been completed in
Summary	online 30 minutes	session	has	been	the presence of the honourable vice-
	objective type test	taken	by	Dr.	chancellor of IGNTU Prof. Shri Prakash
	on R Language.	Balaswar	ny sir.		Mani Tripathi, Chief Guest Shri Guntha
					Laxman, Prof. M.T.V. Nagaraju, Prof. Johri
					and other faculty members.
					-

Research Methodology Course Outcome:

- 1. This course has brought deeper understanding of advanced statistical techniques and its application for multidisciplinary research project.
- 2. From this course, participants have enhanced their proficiency in utilizing the SPSS and R programming language for advanced data analysis.
- 3. This course has improved capability to interpret and draw insights from diverse data sources.
- 4. This course has made clear understanding of how to conduct research process including framing good title for research study, constructing objectives and hypothesis testing etc.
- 5. In this course, participants have learned about various types of useful e-contents, data analysis software, plagiarism detection tools, and referencing styles.

Remark:

1. This course is highly commendable for its comprehensive coverage of advanced data analysis. Participants have gained necessary skills using SPSS and R language from esteemed resource persons. Overall, this course served as a valuable resource for researchers.