



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI-34 DEPARTMENT OF MATHEMATICS

A report on the Online **Workshop On Mathematical Analysis**



(8 – 13 June 2020)

Objective

The objective of the workshop was to ignite the spirit learning mathematical analysis and problem-solving techniques among PG students, research scholars and young college teachers.

Platform

The prerecorded video lectures and contents were published on You Tube and the participants were encouraged to solve and submit the assignment problems through Google Classroom.

Inaugural function

Inauguration of the Workshop MATANA 2020 was held on 8th June 2020. Dr. S. Athisayanathan, Coordinator, Department of Mathematics (Shift-2) welcomed the participants, Dr. M. A. Basker, Head of the Department of Mathematics delivered keynote address and Dr. Lawrence Joseph Manoharan, Former Head of the Department of Mathematics, St. Joseph's College, Trichy delivered the inaugural address and he insisted the importance of Mathematical Analysis to the participants. Dr. J. Geno Kadwin, Convener of MATANA 2020 outlined the dynamics of the workshop on MATANA 2020.



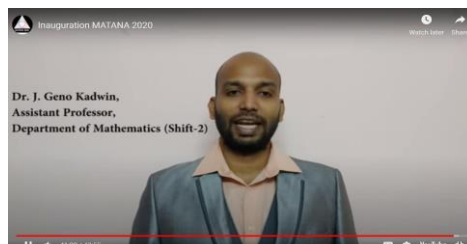
Welcome Address-Dr. S. Athisayanathan



Keynote Address-Dr. M. A. Basker



Inaugural Address-Dr. R. L. Joseph Manoharan



Dynamics - Dr. J. Geno Kadwin

Resource persons and topics

The following eminent Professors in the field of Mathematical Analysis were the speakers of the workshop MATANA 2020.

Dr. P. Sam Johnson

Associate Professor

Department of Mathematical and Computational Sciences

NIT Karnataka, Surathkal, India

Topic: Uniform continuity

(8 June 2020)

Lecture-1 Uniform Continuity-Part 1

Lecture-2 Uniform Continuity-Part 2

(9 June 2020)

Lecture-1 Uniform Continuity-Part 3

Lecture-2 Uniform Continuity-Part 4

Lecture-3 Uniform Continuity-Part 5

Dr. M. Marudai

Professor Emeritus of Mathematics

Bharathidasan University

Tiruchirappalli, Tamil Nadu, India

Topic: Multivariable calculus

(10 June 2020)

Lecture-1 Characterizations of linear transformations

Lecture-2 Derivative of functions of several variables

Lecture-3 Banach contraction principle

Lecture-4 Continuously differentiable functions

Lecture-5 Inverse function theorem

Dr. R. Roopkumar

Professor and Head

Department of Mathematics,

Central University of Tamil Nadu

Thiruvarur, Tamil Nadu, India

Topic: Lagrangian multiplier method for constrained optimization problem

(11 June 2020)

Lecture-1 Fundamental Concepts

Lecture-2 Implicit function theorem

Lecture-3 Lagrangian Multiplier method

Dr. C. Ganesa Moorthy

Professor of Mathematics

Alagappa University

Karaikudi, Tamil Nadu, India

Topic: Multiplicative analysis

(12 June 2020)

- Lecture-1 Multiplicative modulus function
- Lecture-2 Multiplicative metric spaces
- Lecture-3 Continuous functions
- Lecture-4 Infinite products
- Lecture-5 Compact spaces and connected spaces

Dr. A. Anthony Eldred

Assistant Professor

Department of Mathematics

St. Joseph's College (Autonomous)

Tiruchirappalli, Tamil Nadu, India

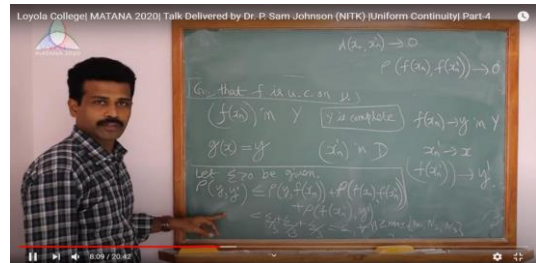
Topic: Characterizations of normed linear spaces

(13 June 2020)

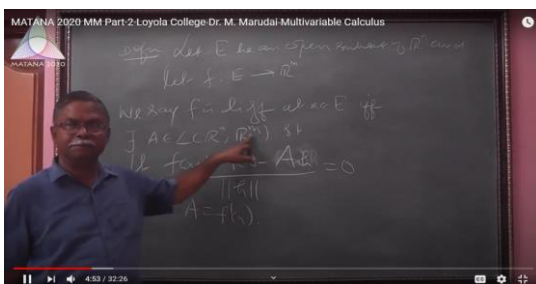
- Lecture-1 Normed linear spaces
- Lecture-2 Infinite dimensional Banach spaces 1
- Lecture-3 Infinite dimensional Banach spaces 2
- Lecture-4 Metric properties of normed linear spaces
- Lecture-5 Duals and double duals
- Lecture-6 Inner product spaces
- Lecture-7 Separable spaces
- Lecture-8 Duals of spaces



Day 1- Dr. P. Sam Johnson



Day 2- Dr. P. Sam Johnson



Day 3 - Dr. M. Marudai



Day 4 - Dr. R. Roopkumar



Day 5 - Dr. C. Ganesa Moorthy



Day 6 - Dr. A. Anthony Eldred

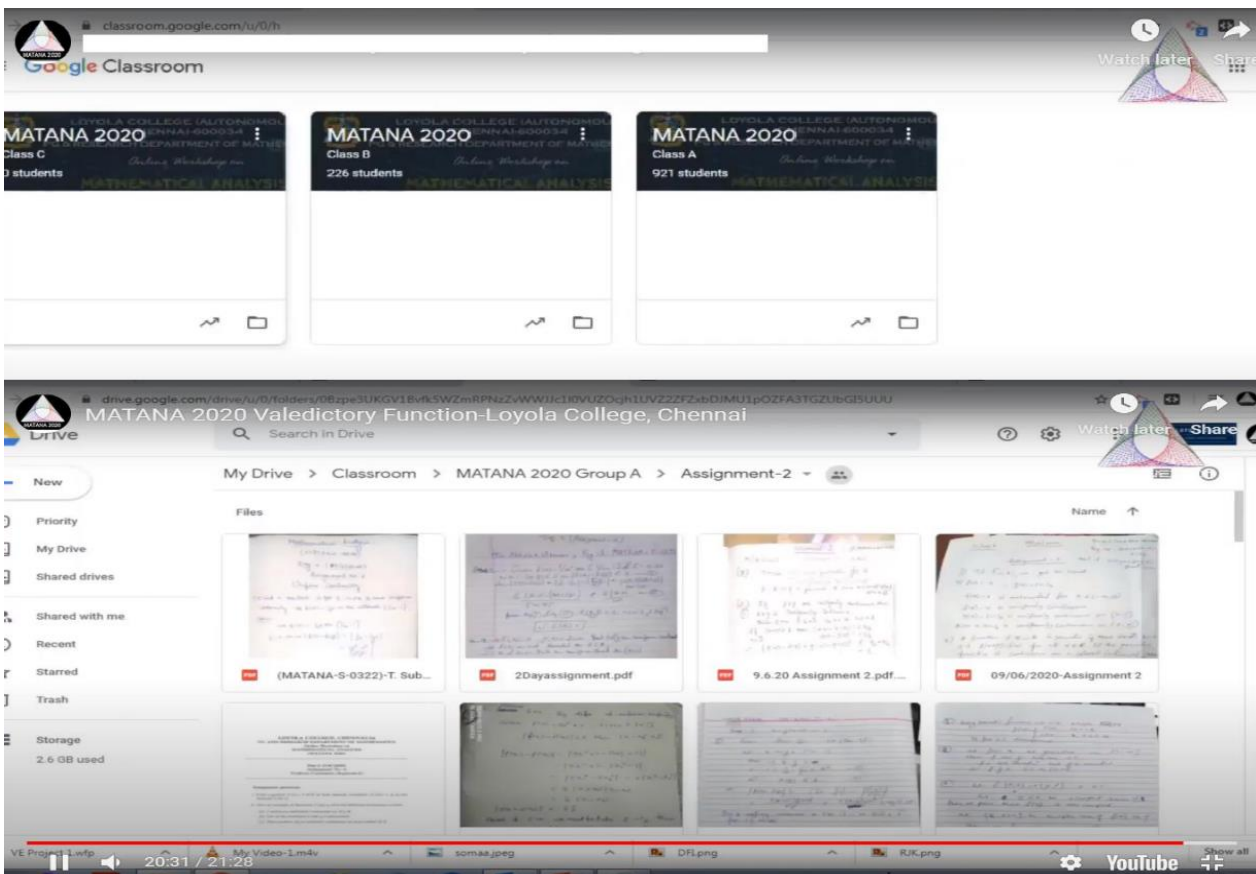
There were published 40 videos on You Tube including the above 26 lectures. Every day one Professor from our Department recapped and another Professor introduced the Resource person of the day.

Participants

For the workshop on Mathematical Analysis, 2354 participants registered and 2168 participants were selected among them 1606 (74%) were Teachers and 562 (26%) were students, and 1148 participants were active during the workshop. This workshop covered some interesting topics in Mathematical Analysis and was framed to develop analytical skills. The participants showed interests in solving problems asked in Quizzes and Assignments. The active participants were issued participation e-certificates.

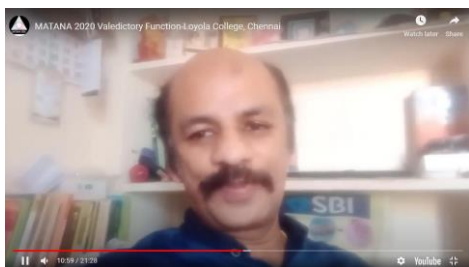
Quizzes and Assignments

For the participants of MATANA 2020, quizzes and assignments were regularly conducted online. 5 sets of quizzes and 6 sets of assignments were given to the participants. The participants discussed and shared the solutions of the problems in Google Classroom regularly. The resource persons were added as Teachers in Google Classroom and they answered the questions and doubts raised by the participants.



Feedback

Most of the participants gave positive feedback about the workshop through Google form and some of them gave in the form of videos. They were published in the valedictory function also.



Feedback - Dr. S. Balaji



Feedback - Dr. David



Feedback-Mr. S. Sahaya Joseph Nirmal Kumar



Feedback - Ms. V. Thanga Murugeswari

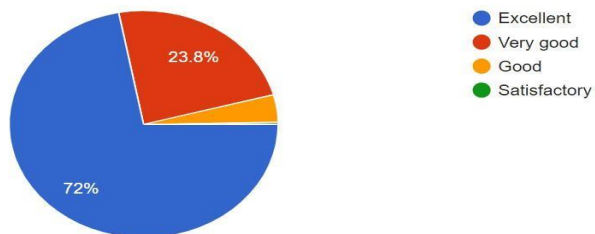


Feedback - Dr. Anil Kumar



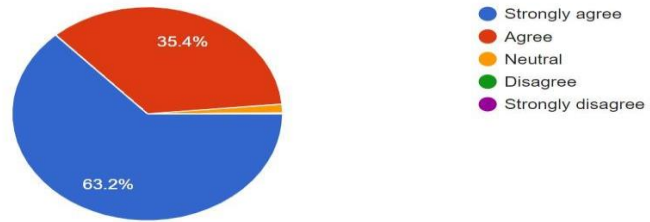
Feedback - Mr. M. Cruz

The selection of the topics in the entire workshop is
690 responses



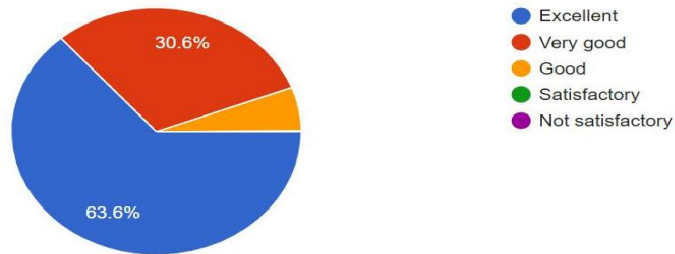
The contents of the lectures met with your expectations

690 responses



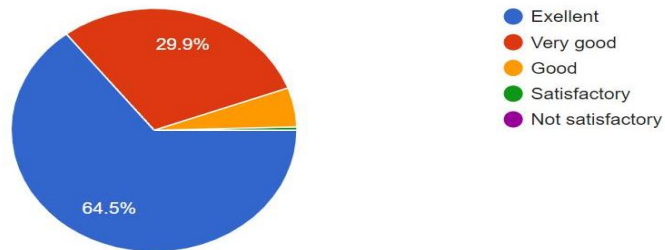
The sequence of lectures delivered during the workshop was

690 responses



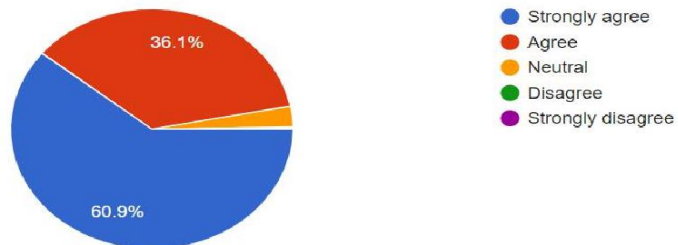
The delivery of the contents by the Resource persons was

690 responses



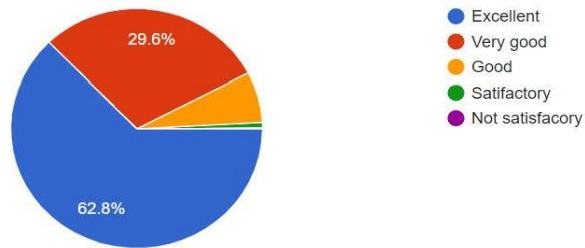
The lectures and contents were clear to understand

690 responses



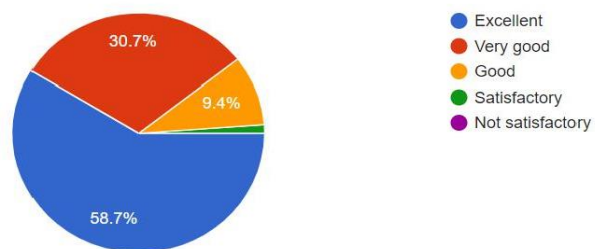
The audio/video quality of the videos published in YouTube is

690 responses



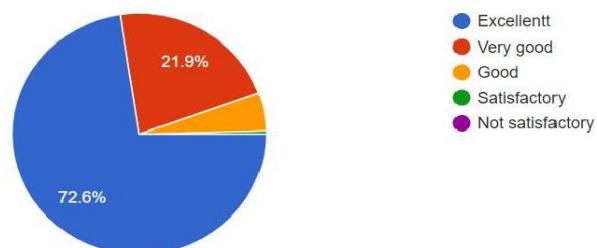
The quiz, assignments and discussions were

690 responses



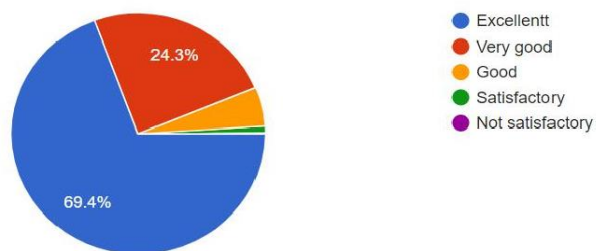
The coordination of the workshop by the organizing committee was

690 responses



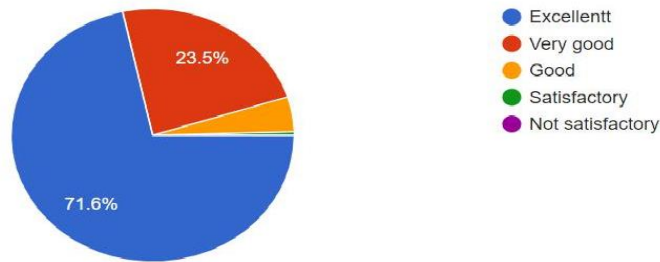
The response and the communication from the organizing team was

690 responses



The overall conduct of the entire workshop was

690 responses



Your valuable suggestions and comments for our improvement (optional)

383 responses

All sessions are valuable to me. Need to conduct in single mode. Quiz, assignment, feedback form need to post in Google class room itself.

It's very useful for us as well as for our future

Thank you very much sir, every day the different topics and explanation were very nice sir, Congratulations to Organizer.

Very informative sessions. Thank you very much for this opportunity..

Excellent Coordination and Wonderful Session

Reduce videos.

Video and audio quality improve

Your valuable suggestions and comments for our improvement (optional)

383 responses

The workshop was very good. But was little like over the head...lot of information to store in mind in 6 days. So if two or three resource persons per workshop and maximum 3 videos per day will be good so that we can absorb and remember what we heard. Or if all the videos will be in the YouTube..then we can leisurely hear properly without any hurry and try to recollect what we heard.

Simply Superb. Really very nice workshop .

Thank you Sir. Good webinars can be a little like independent movies – they leave you feeling wonderful, inspired, and ready to take on the world. The resource persons are excellent and their presentation also. The way you people are handling this webinar is quite appreciable. Thank you sir for giving me an opportunity at the last moment to participate in this webinar. Last but not the least Thanks to all supporting staffs of LOYOLA college, Chennai. Thanks a lot. It was a nice experience. If you are organizing any other webinars, workshops in future, I will definitely participate in it.

Organize more programs in future

Valedictory function

The valedictory address was given by Dr. S. Somasundaram, Professor of Mathematics, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu. He summarized the events of MATANA 2020 and appreciated the participants. Dr. S. Iruthaya Raj, Convener of MATANA 2020 proposed vote of thanks. He thanked the management of Loyola College for its moral and financial supports provided to conduct this workshop successfully.



Valedictory address by Dr. S. Somasundaram



Vote of thanks by Dr. S. Iruthaya Raj

Programme outcome

The participants will be able to know the fundamentals of mathematical analysis and learn various techniques to solve problems related to analysis. They will also be motivated to do research in analysis and its applications.

Organizing Committee

Rev. Dr. Francis P Xavier, SJ

Rector

Rev. Dr. D. Selvanayakam, SJ

Secretary

Rev. Dr. A. Thomas, SJ

Principal

Dr. M. A. Basker

Head of the Department

Dr. S. Athisayanathan

Coordinator of the Department

Dr. S. Iruthaya Raj

Convener

Dr. J. Geno Kadwin

Convener

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI-600034

PG AND RESEARCH DEPARTMENT OF MATHEMATICS

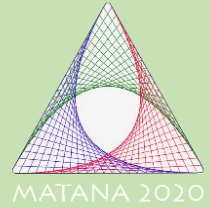
(Shifts 1 & 2)

Organizes an Online



Workshop on Mathematical Analysis

(MATANA 2020)



for

Young College Teachers, Research Scholars and PG Students of Mathematics

8 - 13 June, 2020

About the Department

Loyola College was established in the year 1925 with three departments including the department of Mathematics with B.A. program in Mathematics. The Honors course in Mathematics was integrated in 1927 and the first batch of students appeared for the B.A. Honors degree in 1930. The department was recognized as a Research department in 1984. The Racine Research Centre in Mathematics was established in 1991 on the occasion of the birth centenary of Rev. Fr. Charles Racine D.Sc., who was one of the big influences in the development of modern Mathematics in India.

About the Workshop

The Workshop on Mathematical Analysis (MATANA 2020) is organized for the young college teachers of Mathematics and the young minds of PG and research scholars in the field of Mathematics. This workshop covers some interesting topics in Mathematical Analysis and is framed to develop analytical skills of teachers, research scholars and PG students. By utilizing the lectures and by solving problems in the workshop, participants will recollect and can improve their skills in Mathematical Analysis.

- ∂ Interested people are encouraged to participate
- ∂ Limited seats are available
- ∂ No registration fee
- ∂ e-Certificates will be issued to the active participants
- ∂ Practice of solving problems in the platform is encouraged
- ∂ The last date for the registration is 4th June 2020

Registration link

https://docs.google.com/forms/d/e/1FAIpQLSdltKOW2_rWPOursZ-4dPP5jDXatULAbqkndPMvt97T67YEYQ/viewform?usp=sf_link



Resource persons

The following eminent Professors in the field of Mathematical Analysis are going to be the speakers of the workshop MATANA 2020. It is expected that the speakers will induce new techniques of Mathematical Analysis during the workshop.



Dr. M. Marudai
Professor Emeritus of Mathematics
Bharathidasan University, Tiruchirappalli,
Tamil Nadu, India

Multivariable calculus



Dr. C. Ganesa Moorthy
Professor of Mathematics
Alagappa University,
Karaikudi, Tamil Nadu, India

Multiplicative analysis



Dr. R. Roopkumar
Professor and Head
Department of Mathematics,
Central University of Tamil Nadu, Thiruvavur,
Tamil Nadu, India

**Lagrangian multiplier method for
constrained optimization problem**



Dr. P. Sam Johnson
Associate Professor
Department of Mathematical and
Computational Sciences,
NIT Karnataka, Surathkal, India

Uniform continuity



Dr. A. Anthony Eldred
Assistant Professor of Mathematics
St. Joseph's College (Autonomous),
Tiruchirappalli, Tamil Nadu, India

Characterizations of normed linear spaces

Blessings

Rev. Dr. Francis P Xavier SJ

Rector

Rev. Dr. D. Selvanayagam SJ

Secretary and Correspondent

Rev. Dr. A. Thomas SJ

Principal

Felicitations

Dr. Melchias Gabriel

Deputy Principal

Organizing committee

Dr. M. A. Basker

Head of the Department

Dr. S. Athisayanathan

Coordinator

Dr. S. Iruthaya Raj

Dr. J. Geno Kadwin

Conveners

Contact details

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9894131838 (Dr. J. Geno Kadwin)

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