Aeflecting a true global perspective in education





MBA MCA MSc COURSES in BIOSCIENCE



MAR ATHANASIOS COLLEGE FOR ADVANCED STUDIES TIRUVALLA KERALA-689 101, INDIA

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8 postgraduate courses

100 +RANKS!







sky is not the



limit for us



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NSIM

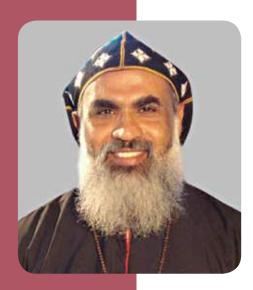
To attain a level of excellence at par with top international institutions so as to become a trendsetter in education.

MISSION

To transform young people and mould them into valuedriven, culturally enriched and professionally competent change agents who would significantly contribute to improve their immediate community, the state, the country and the world at large.

OBJECTNES

- To meet the global, national and local needs of education.
- To provide moral as well as spiritual development of the stakeholders.
- To develop true Professionals who aim at personal, institutional as well as national development.
- To provide able human resource required for the knowledge economy of India and abroad.



PRESIDENT AND PATRON

H. G. Dr. Thomas Mar Koorilos Archbishop of Tiruvalla Diocese



Principal's MESS-AGE

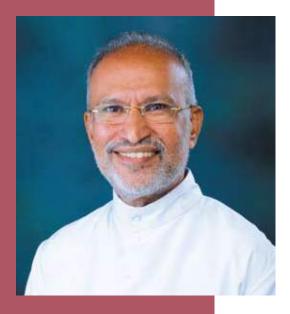
MACFAST, the trendsetter in education, aims to build knowledge, not of data but of information and values and also the process of transforming knowledge to wisdom. MACFAST always promotes value-based education; it is the process of instilling competency in experiential learning and teaching approach that work hand in hand with technology, values and humanity in a sustainable manner. It helps to develop a strong learning and teaching environment that enhances the learning capabilities with academic

Fr. Dr. Cherian J. Kottayil PRINCIPAL CUM DIRECTOR

excellence that equip students with good leadership skills and also improves social responsibility, relationship skills throughout their life. We make sure the student's all round development as an intelligent, alert member of society

The teachers always accompany our students as friend, philosopher and mentor. They motivate students to attain confidence to explore and build their full potential irrespective of their background.

MACFAST always promotes positive learning environment influenced by its vision and positive values. Our mission and vision lead the students to mould them to be better human beings with knowledge, technology and social commitments. We equip our students with social sensitivity and responsibility that help them to work with, and relate to others effectively.



Founder's MESS-AGE

Rev. Dr. Abraham Mulamoottil Founder and Former Principal of MACFAST

MACFAST Quintuple Bottom Line of Education, Innovation and Sustainability The experiments and experiences of MACFAST as "the trendsetter in education" are an exceptional model of education, innovation, and sustainability. The model leverages triple bottom line (TBL), focusing on how project disturbs the Planet, affects the People and addresses the Profit. MACFAST added two more bottom lines, the Passion for study and the Purpose of life, making it the quintuple bottom line. The Philosophy of Marginal Hermeneutics (Interpreting from the Margins) introduced a fresh thinking of 'continuity and discontinuity' from the traditional educational system to an inclusive, innovative, and sustainable model of education in MACFAST. The MACFASTIAN praxis for action and reflection is evident in various projects. For example, MACFAST became the first fully solarpowered and energy sufficient education institution in India. Similarly, the College started the Clean and Green Campus project, an awareness-action-research programme that was subsequently extended to a campaign for its surrounding town - Clean and Green Tiruvalla - leading to an award for best Municipality in the State. The Go-Green praxis made by this educational institution has resulted in biogas channelling from the toilets being used for all cooking purposes. Finally, it owns the first campus-based community radio station in the country- Radio MACFAST 90.4 - to bridge the knowledge divide, which has also become one of the main means of sustainability. MACFAST innovations continue to arise and endure by rereading its vision with continuity and discontinuity from the tradition and this brand remains noticeably secular, neutral, inclusive, and professional.

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ENTER TO

COURSES OFFERED

MBA (Master of Business Administration) MCA (Master of Computer Applications) M.Sc. Biochemistry M.Sc. Bioinformatics * M.Sc. Biotechnology M.Sc. Food Technology & Quality Assurance M.Sc. Phytomedical Science & Technology * M.Sc. Plant Biotechnology *

* MACFAST is the pioneer in these streams of higher education in Kerala



Ar Athanasios College for Advanced Studies Tiruvalla (MACFAST) is a premier Postgraduate Research Institute, affiliated to the Mahatma Gandhi University, Kottayam, approved by the All India Council for Technical Education, New Delhi and accredited by NAAC with 'A' Grade. It was established in 2001 with the objective of moulding the students into eminent professionals over the years to confront the challenging demands of the corporate world and the world of Science & Technology. Hence MACFAST offers the best

7



courses in Business Management, Information Technology and Biosciences.

Within a very short span of its existence, MACFAST has emerged as a trendsetter in education and has turned to a benchmark for others to emulate with its unparalleled hallmark of academic brilliance and social commitment. The overall environment is conducive to intellectual, spiritual and social welfare of the students.



Profile

The college strives to elevate its students to meet the challenging demands of the world of business, science and technology. Thus, it addresses the needs of the society by moulding future leaders and managers with high ethical awareness. It creates and sustains a conducive environment for students to develop themselves as personally responsible, culturally sensitive and socially committed professionals.

The college emphasizes holistic development of students through curricular, co-curricular and extra-curricular activities that enable them to compete in the global arena. For realizing its vision, the college has framed committees for every activity. An efficient teaching fraternity works toward academic excellence, and fosters research, and also provides opportunities for cocurricular as well as extra-curricular activities, under their guidance.



Prof. Varghese Abraham Administrator

The Management

MACFAST is owned and managed by the Corporate Educational Agency of the Catholic Archdiocese of Tiruvalla, with His Grace Dr. Thomas Mar Koorilos as the President and Patron. The administration of the college is carried out under the supervision of the Principal, Rev. Dr. Cherian J. Kottayil. The Governing Board and Academic Council of MACFAST are constituted as per the AICTE norms with eminent personalities. Presently, the Chairman of Academic Council is Rev. Dr. Ignacimuthu S. J. (Director, Entomology Research Center, Loyola College Chennai, Former Vice Chancellor of Madras University and Bharatiyar University, Former Principal, Loyola College, Chennai).



THE MACFAST APPROACH

MACFAST believes that the true purpose of education is not just imparting knowledge but also encouraging personal empowerment of every individual with a desire for self-development. Our world is highly networked with borderless information. This has given a different perspective in the way we look at education. MACFAST brought out multidisciplinary approach in the field of education which is supported by high-tech IT infrastructure. We understand that a successful individual is measured not only on the basis of the peripheral assets but also on the quality of life he is able to maintain. MACFAST is a student-initiated campus that aims at tapping the unutilized potential of students and transforming them into ethical and competent professionals. All these efforts contribute towards the bigger goal of creating a *Knowledge Society* beneficial for the world at large.

Infrastructure and Learning Resources

The policy of the Institution is to provide state-of-the-art infrastructure. To facilitate effective teaching and learning, timely upgrading of the technology-aided resources and modernization of laboratories, class rooms, hostel facilities and the facilities for extra-curricular activities are implemented.

Campus

The college has two adjacent campuses with multi-storied buildings. The main campus hosts the MBA and MCA programmes and the Bio campus hosts the M.Sc. Biosciences programmes. The campus accommodates a total built up area of 3, 00,000 sq.ft, class rooms, seminar halls, laboratories, hostels, library, computer lab, and areas for recreation and entertainment.

Computer Labs

The college has a full-fledged computer lab which consists of silicon graphics workstation, network lab, microprocessor lab and 45 Mbps leased line internet connection with five servers running on open source operating system. The computer lab is accessed by students and faculty members for getting a continuous technology-enabled learning.



Aptitude Server

The aptitude test server in the college contains more than 2 lakh questions in Quantitative Methods, Logical Reasoning and English. It also has a Web-based system through which students can practice at any time.

Library and Reading Rooms

MACFAST Library and Information Centre (MLIC) consists of main library and various department libraries of the college. The library has a collection of more than 32281 books, e-journals databases (EBSCO, ProQuest, J-Gate Management), 148 periodicals, 1650 bound volumes of journals, 1078 CD-ROMs, more than 3200 students' project reports, previous year question papers, newspaper clipping files from the year 2001, pamphlets and brochures of various institutions, cartographic materials etc. Ample space has been provided for referencing, reading and discussions.

Digital Library

Our digital library enables students to explore the field of Information Technology, Management and Biosciences. Students have access to a wide range of well-organized information in digital forms enabling them to search, retrieve and process in a user-friendly manner.



Every time I come for attending a meeting I always find new innovations and I know MACFAST has a great future at this rate; because they have very clear objectives, terrific enthusiasm and tremendous capacity for hard work and that is a combination which must win.

Padma Vibhushan Dr. M. S. Valiathan



E-resources / e- books archive

E-books Archive: Books relating to Computer Sciences, Management, Biosciences and other general books are housed in the electronic format for easy reference.

Study Archive

The faculty members can upload study materials in the form of notes, PPTs, abstracts etc. in the study archive. The students are using the study archive as part of their learning exercise.

Participation in Resource sharing networks / consortia like INFLIBIT (Information and Library Network Centre is an Autonomous Inter-University Centre of University Grants Commission).

Library is a part of resource sharing network. The college Library is one of the members of DELNET (Developing Library Network) which promotes resource sharing among libraries through the development of library networks.

Research Forum

Periodic meeting of faculty members, research scholars and students are conducted to encourage discussions and deliberations on research areas of specific interests. A culture of research and a quest for further knowledge is fostered through these interactions.



Bioscience Lab

The college has five full-fledged laboratories for the programmes of Biosciences such as Plant Biotechnology, Molecular Biology, Food Processing, Biochemistry and Microbiology. The college has also installed a high throughput Computational Biology laboratory. These laboratories have state-of-the-art facilities.

Language Lab

The language lab facilitates in encouraging students to accrue proficiency in communicative English and foreign languages. The Laboratory is equipped with 1:30 LAN based Teacherstudent direct interactive software and also 1:400 real time, web-based applications, workbooks, software and audio-video CDs.

Foreign Language

Students are encouraged to learn foreign languages like German, French, Spanish, etc. to enable them to acquire multilanguage skills required for a global citizen.

BEC - Business English Certificate

Students have the opportunity to get certification in Business English from Cambridge University Press.



The students get an opportunity to work with distinguished people and learn through multidisciplinary networks and structures. If a student is looking for outstanding education, best experience, top class mentoring, quality formation and exclusive career support, then the ideal place is MACFAST.

Dr. Fr. Ignacimuthu S.J. (Former Vice Chancellor, University of Madras & Bharathiar University)





The academic environment at MACFAST really transformed my life and helped me in securing Charles Darwin International Scholarship. The academic culture followed at MACFAST is truly international.

Harinandanan P.V. Research Scholar, Charles Darwin University, Australia

HERBAL GARDEN

The Herbal Garden maintained by the college serves the purpose of education, research and conservation of germplasm of medicinal and aromatic plants, wide varieties of endangered species, dye-bearing plants and other species of ecological/ economic interests. The garden with nursery and greenhouse facility, at present, maintains more than 300 indigenous medicinal plants, including rare and endangered species.





Auditorium and Conference Hall

The college has a well-furnished air-conditioned auditorium with a seating capacity of four hundred. A conference hall with a seating capacity of 120 is provided in the campus and it is used for arranging various programmes for developing skills in communication and public speaking , practicing yoga and for organizing classes related to health, hygiene etc.



Hostels

The college provides hostel facilities for students with sufficient infrastructure. The ladies' hostels are in the main campus and the men's hostel is adjacent to the main campus within a distance of 200 mtrs.

St. Thomas Hostel for Men

A seven-storied hostel is built on the south-west zone of the college campus for men. This hostel is facilitated with single room, double room, dormitory accommodation and Study Hall.



Recreational facilities and gymnasium are available both in the Men's and Ladies' hostels.



MACFAST Baking Unit



Water Treatment Plant





St. Alphonsa Ladies' Hostel

The old block of the hostel provides the facilities of double rooms, dormitory and study hall. The new block is a six-storied building with the facilities of single rooms, shared rooms and study hall.



Mother Theresa Chapel and Meditation Hall

The college owns the first chapel named after St. Mother Theresa. Holy Mass is scheduled every day for the residents of MACFAST. A Meditation Hall adjacent to the chapel is for the use of all MACFASTians.

Recreational facilities with audio video equipment

All the hostels are connected to view audiovisual recreational programmes

FREE

Internet and Wi-Fi facilities

Free Wi-Fi enabled high speed internet connectivity is available in the campus including both hostels. To ensure uninterrupted supply, the campus is equipped with direct leased line connectivity from two big internet service providers.







Food court

Refreshments are prepared and served in a hygienic environment.

Safe drinking water

Uninterrupted supply of safe drinking water connections are set up in the main campus as well as in the hostels and guestrooms.

Entrepreneurship Development Club (EDC)

EDC focuses more on the creation of entrepreneurship culture among students and provides the required support, training and guidance.

Security

The entire campus and hostels are protected by round the clock security system (Physical security as well as CCTV surveillance system).



National Service Scheme (NSS)

The college has provided an office for the NSS unit and a Programme Officer is in charge of it. Various socially relevant projects and activities are undertaken by the student volunteers.

NPTEL

The college provides a local chapter of National Programme on Technology Enhanced Learning which is an initiative by seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science (IISc) for creating course contents in engineering and science. Now it has been implemented as a project under MHRD providing online certification courses. Contents for the courses were based on the model curriculum suggested by All India Council for Technical Education (AICTE) and the syllabi of major affiliating Universities in India.

UN ACADEMIC MPACT CHAPTER

A local chapter of UNAI functions in the college and has won UNAI Award for "Vanitha Retna": Among the 10 international projects recognized for Diversity Contest, organized by the United Nations Academic Impact (UNAI), cosponsored by the UNHATE Foundation, Italy for helping indigenous teenage girls to access professional education, and uplift them to mainstream. The College received a grant worth €20,000 for the implementation of the project - "Tribal Community based Women Empowerment" in June, 2015.





Innovation and Best Practices

MII

MACFAST Industry Interface facilitates an interactive and collaborative arrangement between MACFAST and business community for the achievement of certain mutually inclusive goals and objectives. MII aims to expose the students to state-of-the-art tools used by the industry and, encourage them to observe the benefits and limitations of these tools and to think of better solutions. Students would thus have a realistic perception of industry and the employers' expectations.

Community engagements

MACFAST has a strong inclination towards working collaboratively with the community and indulge in transparent and credible activities beneficial to the community.



Clean & Green Tiruvalla

Clean and Green Campus

An initiative of Radio MACFAST 90.4 in association with the Thiruvalla Municipal Council to achieve the aim – Clean and Green Tiruvalla. The concept put forward is NIMBY (Not In My Back Yard) Syndrome to IMBY (In My Back Yard) habit i.e. waste management in the source itself which is an initiative to practice micro level decentralized waste management.



War against Drugs

War Against Drugs is a crusade programme against the usage of Alcohol and Drugs. Radio MACFAST conducts awareness programmes, seminars, road shows etc. to convey the message to abstain from the use of liquor and drugs.

Hrudayaspandhanam

The heart surgery programme-'Hridayaspandhanam' is one of the social responsibility activities of radio in association with Pushpagiri Medical College, Thiruvalla and different stakeholders of radio MACFAST 90.4. One surgery costs around Rs. 1, 50,000. It envisages offering 50 free heart surgeries for those who are in need. So far 9 persons were successfully treated under 'Hrudayaspandhanam' programme.

Nervazhi

'Nervazhi' is a one-year pilot project launched by Radio MACFAST, in association with the Kerala Motor Vehicles Department and Kerala Police. This programme is intended to give traffic awareness to students and the public.

MAKS

(MACFAST Knowledge Scheme) MAKS is an endeavor of MACFAST to trigger knowledge revolution. It envisages identification, training and development of selected talented high school students for enhancing their personality and enabling them to face competitive examinations.



War Against Drugs



'Hrudayaspandhanam'



Traffic Awareness Programme



Special Training for School-going Students



SUSTAINABLE ENERGY

Biogas plant

The college has installed a biogas plant on the campus in 2012. The amount of biowaste being generated from the time of installation is 250 kg per day. The plant installed on the campus applies different technologies for treating different types of organic wastes according to the nature and type of waste. More than 90% of the designs of biogas plant and the treatment technologies are developed after incessant research. Hence better performance is assured.

Solar power plant

MACFAST is the first educational institution in Kerala that installed the largest roof top solar power plant with a capacity of 30 Kilo Watts in 2011. Now it has been extended to 130 KW.

Water harvesting

The campus has a full-fledged rainwater harvesting facility. As a part of the watershed management scheme the institute has constructed two interlinked ponds in front of the administrative block with a storage capacity of 2,25,000 liters of rainwater collected from rooftops.

Effort on carbon neutrality

The college has a well-organized system to check the emission of carbon dioxide.

Plantation

Efforts have been made by the college to maintain eco-friendly green campus.



...MACFAST, the premier educational institution offering excellence in technology is a dream come true for any one. The meticulous support given by the placement cell at MACFAST helped to materialize my aspirations of joining one of the finest companies in the world.

Anish Mohan Business System Analyst, Allianz UK Guildford





Radio MACFAST 90.4 FM (Community radio)

Radio MACFAST 90.4 (Reg. No. PRO268) – a community radio station owned by the college is the first On-Campus Community radio in the state of Kerala and 46th in the country which was launched on 01 November, 2009. Radio MACFAST (RM) realizes that transfer of knowledge takes place in both directions- from the urban society to the rural one and vice versa. It ensures its presence in the central Travancore (parts of Pathanamthitta, Alappuzha, Kollam, Idukki and Kottayam districts) as a catalyst in bridging the knowledge divide in the society. It has almost 10 lakh listeners from different parts of these 5 districts. Today Radio MACFAST is a trendsetter in community radio segment through its wide range of diverse and interesting programmes, which airs 18 hours and 15 minutes a day.

RM School Club

Radio MACFAST School Club is one of the novel initiatives of this community radio. Almost 15 schools in and around Thiruvalla participates in this program. They have the opportunity to perform their program on every Fridays and Saturdays.









State and National Award for Best Radio Programme





RM Charities

RM Charities finds the poor and needy in the community who are financially deprived and provides financial and labour assistance towards building houses for the homeless and treatment of the terminally ill.

Students' participation

As part of industry interface initiatives, students are participating in the programmes of Radio MACFAST, which enable them to expose their talents and explore the unlimited opportunities of community radio. They are offered reasonable remuneration to fulfill the concept of self-sustainable campus. Students have the opportunity to work with radio from 5 pm to 10 pm every day including holidays.

Listeners' club

Radio MACFAST acts as a centre for social, cultural and national integration. It intends to work towards creating acivil society with a growing sense of community values, irrespective of caste, creed, age, gender or discrimination based on level of education. Radio MACFAST has formed a Listeners' Club to coordinate the listeners from various parts of the state and make them involve in socially relevant programmes. It also conducts annual meets of its listeners.



is a unique 2-day annual national level competition for students on three major areas - Business Management, Computer Applications and Biosciences organised

at MACFAST Campus. Graduate and Postgraduate students from various Universities/Institutions in India participate in this fest, and test their knowledge and skills in their respective domains. There are individual and team events for students to compete and win attractive prizes. A colourful arts, cultural and talent night is also another attraction of MACfiesta.

MACFAST Biointegrated Plastics

A research wing attached to the college has developed reinforced plastics, which is claimed to be biodegradable to a large extent at lowest cost of production. One of the products, cloth hangers made on an experimental basis of bio-plastics, was well appreciated by experts at the Central Institute of Plastic Technology, Hyderabad, where the moulding of bioplastics were done. The college has already filed an application for patenting the product.

Waste management

The college has an established waste management system. Waste bins are kept in each floor, hostels, canteen and other identified spots on the campus. Wastes collected from the campus are classified into different categories. The plastic wastes are graded and taken for recycling by outside agencies. The college also maintains a plastic shredding unit for shredding plastic wastes. Fast decomposing waste materials are transferred into the Bio-gas plant for generating bio-gas.

MACFAST Outreach Programmes

The expertise of MACFAST Faculty members is extended outside the college with the support and involvement of students in the form of consultation, classes, training seminars, talks etc.



The College was recognized as a "Happyfied Campus" for spreading happiness to its students through the Art of Living Youth Programs by Gurudev Sri Sri Ravi Shankar, the founder of Art of Living Foundation, Bengaluru, on 5th January 2018.





Career Management and Placement Assistance

The Career Guidance Cell of the Institute provides students with the resources and skills necessary to pursue their career goals. The Cell is mainly responsible for establishing contact with various organizations and arranging interviews for the students. It also takes care of Industrial Visits and Summer Training. The dedicated Placement Cell functions under the guidance of a full time Placement Officer.

Campus Placement

The Placement Officers regularly interacts with HR managers from different companies both in India and overseas and invites recruitment teams for Campus Placement. The interest, skill and motivation of each student is regularly monitored to ensure employability.

Placement Hub

The college organizes recruitment drives of major companies at regular intervals, thereby acting as a placement hub

Personal Skill and Communication

The Placement Cell co-ordinates the soft skill training required for students to obtain placement. The students are divided into batches and each batch goes through training for a month with follow-up sessions at regular intervals.



Some of the major recruiters

Aptitude Test and GD-Training

Technical Aptitude Test, English Aptitude Test and Group Discussions will be conducted every month for the students.

Students Job (Earn while you learn)

Students are encouraged to work part-time for the industry during the period of their study in college itself. They are also given jobs in the library, administration and other such departments.

Industry Database

The Placement Cell maintains a database of companies in order to assist students in procuring projects, as well as in their final placements.

Meet the Leader

Meet the leader is a program coordinated by the placement cell for students to interact with top executives of companies and eminent people in the society. This programme helps the budding entrepreneurs and scientists to learn from the lives of these successful people and get inspired.

Counselling and Student Advisor

Proper and timely counselling and advises are given to the students.



MACFAST provides students with a rigorous academic challenge united with a rich personal development experience. The community of dedicated faculty and engaged students create opportunities to continuously challenge oneself coupled with invaluable mentoring through various initiatives.

Jaxon Figarado Corporate Human Resources, Tata Consultancy Services Limited





MACFAST FUBLIC ATTONS

The College has published the following books:

Rev. Dr. Mathew Illathuparambil

- Business Ethics, 2005
- Indian Ethos and Management Values, 2011
- Business Ethics and Corporate Governance, 2013

Rev. Dr. Abraham Mulamootil

Puthiya Veenjum Puthiya Kuppiyum, 2011

Dr. Seeni S.

Propagation of BANANA for prosperity, 2017

Journal of Science Technology and Management

The college is publishing a quarterly journal - Journal of Science Technology and Management. It is a multi-disciplinary peer-reviewed Journal (ISSN No: 0974-8334). Selected articles and research papers in related areas of Management, Computer

Applications, Biosciences are published.

POOL OF IIM TRAINED FACULTY

MBA

HIGHEST NUMBER OF TOP RANKS

EXECELLENT PLACEMENT

INDUSTRY INTERFACE PROGRAMMES

Curricular Aspects

MBA programme at MACFAST offers seats for 120 students. MBA is a 2-year, 4-semester, postgraduate programme affiliated to Mahatma Gandhi University, Kottayam, Kerala, and approved by AICTE, New Delhi. MBA is designed with the objective of moulding and transforming young graduate students into competent, responsible, professional managers. We are offering specializations in the field of Finance, Marketing, Human Resources, Information Systems and Operations Management. While the theoretical foundation is structured around the M. G. University prescribed syllabus, a number of additions and innovations are provided to prepare the graduates to cope with organizational and societal requirements for the future. This meticulous, challenging and career-oriented programme integrates challenging workloads with an intensive and rigorous curriculum, which goes beyond the classroom to include co-curricular and extra-curricular activities. The programs at MACFAST are designed with the right mix of practical business knowledge, industrial skills and attitudes. The learning process at MACFAST facilitate the acquisition of competencies and outlook in international business with a focus on developing responsible future managers for leading firms in the global arena.

Teaching that TRANSFORMS

Course Objectives

- To develop young MBA aspirants into professional managers who can contribute to the growth of business and industry in India and abroad
- To develop astute leaders who can efficiently and effectively manage business amidst environmental turbulences
- To nurture entrepreneurial skills among young generation and make them effective change agents
- To contribute towards better management practices in the country and the world by offering quality management education

Scheme and Syllabus

The MBA programme consists of 29 subject courses, Organization Study and 1 Project Work. There are 2 viva voce for MBA programme, comprehensive subject viva in first year and comprehensive viva in second year. All theory courses carries 100 marks each, out of which 40 marks for continual evaluation and 60 marks for comprehensive evaluation by University. The first and second semesters have 800 and 900 marks respectively. The third and fourth semesters have 900 and 700 marks and the total marks for the MBA Programme is 3300.

LIST OF COURSES

Semester I

- 1. Principles and Practices of Management
- 2. Business Communication
- 3. Managerial Economics
- 4. Accounting for Management
- 5. Quantitative Techniques for Management
- 6. Business Law
- 7. Environment Management
- 8. Business Ethics & Corporate Governance

Semester II

- 1. Financial Management
- 2. Marketing Management
- 3. Human Resources Management
- 4. Operations Management
- 5. Operations Research
- Management Information Systems & Cyber Security
- 7. Organisational Behaviour
- 8. Entrepreneurship and Project Management
- 9. Comprehensive Viva Voce (First & Second Semester)

Semester III

- 1. Business Analytics
- 2. Research Methodology
- 3. Elective Course 1 (Specialization Area 1)
- 4. Elective Course 2 (Specialization Area 1)
- 5. Elective Course 3 (Specialization Area 1)
- 6. Elective Course 4 (Specialization Area 2)
- 7. Elective Course 5 (Specialization Area 2)
- 8. Elective Course 6 (Specialization Area 2)
- 9. Organisation Study

Semester IV

- 1. Strategic Management
- 2. Elective Course 7 (Specialization Area 1)
- 3. Elective Course 8 (Specialization Area 1)
- 4. Elective Course 9 (Specialization Area 2)
- 5. Elective Course 10 (Specialization Area 2)
- 6. Summer Internship Project
- 7. Comprehensive Viva Voce (Third & Fourth Semester and Project

Elective courses are offered to students in functional areas like Finance, Marketing, Human Resource Management, Production and Operations Management, International Business and Information Systems. The electives offered shall be on the basis of preference and aptitude of students, availability of faculty members and required infrastructure and facilities in the college.

ELIGIBILITY CRITERIA

- A pass in any Bachelor's Degree Examination of Mahatma Gandhi University or an equivalent degree of any other Universities duly recognized by M.G. University with not less than 55% marks in Science & Technology subjects and 50% marks in other subjects in the aggregate for all parts of examination or a Master's Degree examination with 55% marks in aggregate.
 - For SC/ST students: A pass in any Bachelor's Degree examination is needed for SC/ST candidates.
- Valid CMAT/KMAT/CAT Score.

Admission Procedure

The admissions to the MBA full time programme is strictly on the basis of merit as determined by the entrance examinations KMATKerala / CMAT / CAT, and Group Discussion and Personal Interview conducted at the institution level. The college follows the guidelines and time schedule provided by Mahatma Gandhi University and Admissions Supervisory Committee (ASC) appointed by Govt. of Kerala.

Admissions - Components of Rank List

Based on the score in the entrance test, candidates are short-listed for Group Discussion and Personal Interview. The weightage for Entrance Examination is 70%, Group Discussion is 15% and Personal Interview is 15%. While preparing the rank list, if there is same index marks for more than one candidate, he/she will be ranked on the basis of actual marks obtained in the qualifying exam. Even after this, if there is a tie, they will be ranked on the basis of date of birth; i.e. the elder person is to be ranked higher. Based on the performance in the written test, group discussion and interview, merit list will be prepared and published by the college.

The Reservation Rules are applicable as per the Government norms.

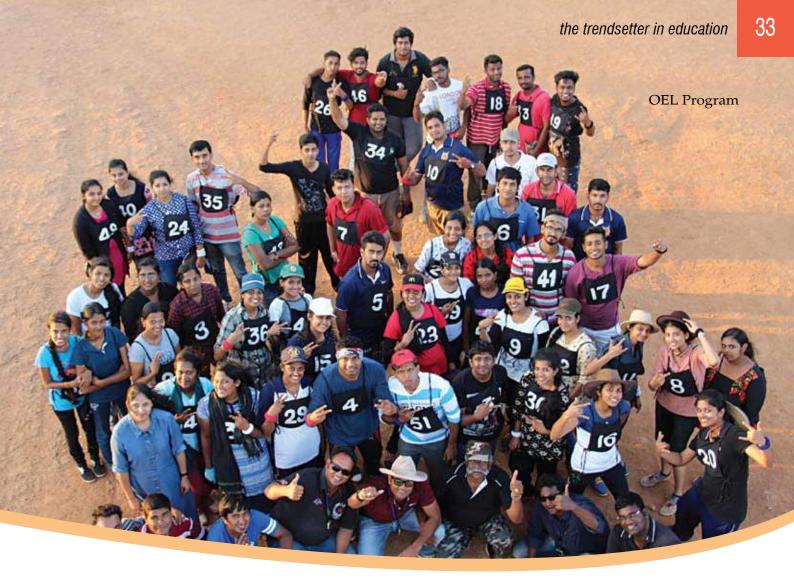


- Orientation program is given at the beginning of MBA course prior to commencement of classes to offer a range of perspectives on life at MACFAST mainly focusing on introducing new students to the college and acclimatizing students to their new surroundings.
- The initiative of MACFAST INDUSTRY INTERFACE (MII) is to prepare the students for the corporate world and help them sustain in this highly competitive world. Students will have the opportunity to interact with leading management thinkers, corporate leaders and entrepreneurs, and other high-profile personalities from government organizations and NGOs.
- Industry Visits (IV) sensitize students to the practical challenges that organizations face in the business world. It also gives greater clarity about various management concepts for students as they can practically see how these concepts are put into action.
- Aptitude test being the first stage of selection process for any company, students should be sharp in their mental ability, logical reasoning etc. Hours are allotted in the class timetable for aptitude training and online test taking. Technical Aptitude Test and English Aptitude Test are conducted every month for the students. These tests are marked in order to track the improvements they make in the courses of their studies.
- As part of placement training, the placement cell focus upon developing students with positive attitude and right



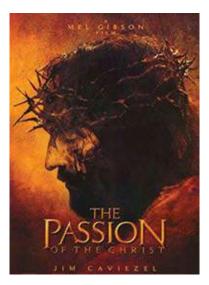
I am grateful to my alma mater for opening a world of opportunities before me. MACFAST is the best.

> Sareena Rahim Assistant Manager, South Indian Bank



decision making through programs such as personality assessment test, communication skill and vocabulary classes, resume writing and email writing sessions, group discussion, interview skill enhancement, mock interviews, aptitude training and practice tests.

- Language and communication skill classes emphasize on learning to comprehend, write and communicate in English. Learning from experts in this field, students are made confident in expressing themselves effectively.
- Youth Empowerment and Skills Plus (Yes Plus) is a lifeskills program specially designed by Sri Sri Ravi Shankar (the founder of The Art of Living Foundation) and offered to those between 18-30 yrs. It is a blend of interactive intense group processes, talks, presentations, physical exercises, yoga, meditation, profound breathing exercises, practical knowledge tips, music, dance and fun-based learning oriented games.
- Outbound Experiential Learning (OEL) is an outdoor management development program. The activities are designed to improve leadership, communication, planning, change management, delegation, teamwork, and motivation. Participants are divided into teams and assigned tasks or activities for completion in a specified time.
- Personality development classes are to build up pleasing and confident personality which is one of the hallmarks of a successful individual since the manner in which one presents and conducts oneself is of importance in the professional world.



As part of experiential learning in Marketing, MBA students undertook the distribution of the Hollywood movie *The Passion of the Christ*





The impeccable trainings offered by MACFAST in soft skills, career development along with the additional software training programs has helped me to surpass the chaotic placement tasks.

Pramod Chandran Technology Specialist UST Global, UK

- The students and faculty members take up certifications in NPTEL courses related to management, which is a joint initiative of the IITs and IISc.
- Seminar on contemporary issues is a platform for MBA students to do presentations in the college auditorium in front of audience on topics of social relevance. Articles from top journals such as Harvard Business Review and books on management are reviewed by students.
- The department regularly organizes seminars, workshops, invited talks, and training programs.
- Conducted an all-Kerala Market Study of packaged drinking water industry for a new company planning to launch its brand in the State.
- Students organize business quizzes on a regular basis that equip them to win prizes in state-level and national-level competitions organized by other institutions and agencies.
- Tutorials and remedial classes are given to students who find it hard to go through different subjects.
- Quality Enhancement Program (QEP) is a voluntary initiative from the part of students and faculty members who are willing to go the extra mile in terms of academics and professionalism. The program caters to the need of MBA students who want to excel in their selected area of career. The students will sit along with teachers in small groups after regular class time for mentoring and skill enhancement.
- Students got exposure to various National, International level conferences and presented papers. Participation and Achievements of the students in various events of National level Management fests conducted by different colleges helped them to improve the overall development of their personality.

Cognizant



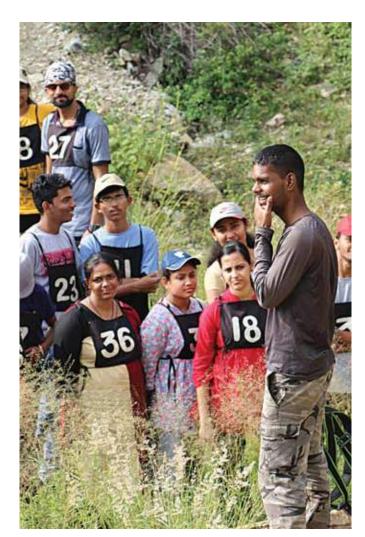
Scholastic Achievements

No.	Name of student	Year	Ranks
1	Anish Abraham	2015-17	2nd Rank
2	Sareena Rahim	2014-16	3rd Rank
3	Nikhila Aby	2013-15	2nd Rank
4	Anupama S.R.	2008-10	3rd Rank
5	Divya Susan Mathew	2008-10	2nd Rank
6	Aleesha Mohammed	2008-10	1st Rank
7	Indu Krishna	2007-09	1st Rank
8	Dilip Koshy	2006-08	2nd Rank
9	Mridula James	2006-08	1st Rank
10	Reshama Nair	2005-07	1st Rank
11	Sindhu Samuel	2004-06	3rd Rank
12	Vimal C. Chandran	2003-05	1st Rank
13	Renji Zachariah	2002-04	3rd Rank



The MBA program at MACFAST provided a platform which helped me shape my mind-set and the perspective to leverage my skills and competence. At MACFAST, students are exposed to world class curriculum taught by the best faculty members and constantly motivated to think Big.

Zubin Verghese Regional Head Hindustan Times, Bengaluru







HIGHLIGHTS

- Individual college with highest number of Ranks in MBA
- Pool of IIM trained & Accredited Management Teachers
- Special Placement and Aptitude Training
- Excellent Placement Support
- Continuous Unique Programme for Personality Development
- Earn While You Learn Programme-Radio MACFAT 90.4, Library& other project Participations
- MACFAST Industry Interface (MII) A set of programmes to enable students to get exposure to corporate practices and expectations
- Outbound Experiential Learning Training programme to improve team skills, crisis management, problem solving, leadership skills, etc. in challenging situations
- Yes Plus a life skills program which is a blend of interactive intense group processes, talks, presentations, physical exercises, yoga, meditation, profound breathing exercises, practical knowledge tips and fun-based learning oriented games
- Add on courses on Various domains
- Organizing various National level events like Tantra, RJ Hunt, Short film Competition etc.
- Exposure to International conferences and workshops
- Quality Enhancement Program (QEP)

 Students sit along with teachers in small groups after regular class time for mentoring and skill enhancement.
- Entrepreneurship Development Club
- Unique CSR Initiatives like War Against Drugs, Clean & Green Campus, Traffic Awareness Program, (MACFAST Knowledge Scheme) MAKS, National Service Scheme (NSS), Rays Of Love etc.
- Free Wi-Fi Campus

FACULTY DETAILS

No.	Name and Designation	Qualification	Area of specialization /Research Interest	Experience
1	Fr. Dr. Cherian J. Kottayil Principal cum Director, MACFAST	Ph.D - KU, Leuven, Belgium STD - Theology MA (Theology) MA (Religious Studies) MA (Philosophy)	Ethics, Philosophy and Social Science	Academics - 9 years Admin 10 years
2	Prof. Varghese Abraham Administrator & Associate Professor	M.Phil, M.Com, MBA	Financial Management Human Resource Management	Academic - 37 years
3	Sanesh P. Varghese Deputy Director, MACFAST Associate Professor	UGC NET, MBA (Finance and Marketing) Strategic Management PGDM-IB, PGDM-Retail Management,FDP-IIMA, Lead Auditor ISO 9001-2008	Security Analysis and Portfolio Management, Entrepreneurship	Academic -12 years Corporate - 7 years
4.	Dr. Jeemon Joseph Director & Associate Professor	D.Litt. Ph.D in Management MBA (HR and Marketing) M.Sc (Operations Research and Mathematics) MA Economics, M.Com	Promotion of Business Education, Human Resource Management, Marketing, Research Methodology, Operations Research	Academic - 16 years
5.	Dr. Sudeep B. Chandramana HoD & Associate Professor	Ph.D in Management M.Phil (Management) MBA (Marketing and Operations) B.Tech (Mech), D.E.M.	Strategy, Marketing Management	Academic - 12 years Corporate - 10 years
6.	Dr. V. P. Vijayamohan Associate Professor	Ph.D in Economics M.Phil (Economics) MA (Economics) MBA (Finance) Fellow IAAP, UK	Banking and Rural Development	Academic - 27 years
7.	Dr. Ashalakshmi R. K. Associate Professor	Ph.D in Management MBA (Finance and HR)	Organizational Culture, Financial Management, Organic approach to Accounting, Banking Research	Academic - 9 years Corporate - 1.5 years
8.	Dr. Aggi Anand Associate Professor	UGC NET, UGC JRF & SRF Ph.D in Management MBA (HR and Information Systems)	Spiritual Intelligence, Corporate Sustainability, Ethical Leadership	Academic - 3 years Corporate - 3 years
9.	Dr. Neethu Ann Georgie Associate Professor	Ph.D in Management, MBA (Operations and Marketing) B.Tech (ECE)	Consumer Buying Behaviour, Operations Management	Academic - 7 years Corporate - 1 year
10.	Rev. Fr. Pradeep Vazhatharamalayil Assistant Professor	MBA (Marketing and HR) Pursuing Ph.D	Health Care Management	Academic - 9 years

11.	Ajai Krishnan G. Assistant Professor	PGDM (Association of Indian Universities) M.Sc Computer Science Pursuing Ph.D	Consumer Behaviour, Branding, Marketing Communication, Retailing.	Academic - 7 years Corporate - 6 years
12.	Arun Prem Assistant Professor	PGDM (Association of Indian Universities) B.Sc Computer Science Pursuing Ph.D	Business Analytics, E commerce, Digital Marketing, Online Consumer Behaviour, Tourism, Information Technology & Marketing	Academic - 7 years Corporate - 6 years
13.	Ligo Koshy Assistant Professor	UGC NET, MBA (HR and Marketing) B.Tech. (Information Technology) Pursuing Ph.D	Advertising Research, Organisational Behaviour, Human Resource Management	Academic - 11 years Corporate - 2 years
14.	Tintu Joseph Assistant Professor	M.Sc (HRM) from Glasgow Caledonian University, UK MBA (HR and Marketing) Pursuing Ph.D	Employee Engagement, Performance Management, HR Analytics	Academic - 7 years Corporate - 4 years
15.	Preetha G. Panicker Assistant Professor	UGC NET, MBA (HR and Marketing) B.Tech (Electronics and Communication), Pursuing Ph.D	Compensation Management, Employee Motivation, Training and Development	Academic - 4 years Corporate - 3 years
16.	Jerly Akku Cherian Assistant Professor	MBA, CS	Human Resource Planning	Academic - 3 years Corporate - 2 years
17.	Jibumon K. G. Assistant Professor	UGC NET, M.Com (Finance)	Financial Management, Accounting, Capital Marketing (Derivatives), Tax Planning & Management, Strategic Financial Management	Academic - 7 years Corporate - 3 years
18.	Jinu Mary Varghese Assistant Professor	MBA (Operations and Finance) B.Sc Mathematics	Operations Strategy	Academic - 4 years
19.	Jeevan Kumar J. Assistant Professor	M.Tech (Industrial Enginnering & Management) B.Tech (Mechanical Engineering)	Operations Research, Supply Chain Management	Academic - 1 year





MCA

CONSISTENT HIGH PASS PERCENTAGE IN THE MGU

LIVE PROJECTS AND INTERNSHIP

MEMBERSHIP OF COMPUTER SOCIETY OF INDIA

Curricular Aspects

The Department of Computer Applications of MACFAST was established in 2001 with a firm belief that the continuous quest for excellence in the pursuit of wisdom is the sole path to success. The Department of Computer Applications of MACFAST has successfully carved a niche for itself in the sphere of technology education in the state within a very short span of its existence. The department offers a two-year Lateral Entry/three-year Master of Computer Applications degree programme approved by AICTE and affiliated to the M.G. University, Kottayam, both having an intake capacity of 60 students each. The objective of this course is to mould eminent professionals with creative minds and sound practical skills in cutting edge technologies to confront the challenging demands of the world of science & technology. Striving to strike a balance between theory and practice, we offer a unique synthesis of world class teaching coupled with collaborative learning opportunities and industrial interactions for students to shape them into topnotch professionals.

Course Objectives

- Produce knowledgeable and skilled human resources which are employable in IT and ITES.
- Impart knowledge required for planning, designing and building complex Application Software Systems as well as provide support to automated systems or application.



- Produce entrepreneurs who can develop customized solutions for small to large Enterprises.
- To develop academically competent and professionally motivated personnel, equipped with objective, critical thinking, right moral

and ethical values that compassionately foster the scientific temper with a sense of social responsibility.

- To develop students to become globally competent.
- To inculcate Entrepreneurial skills among students.

SCHEME & SYLLABUS Course Structure of MCA 3 Year

Semester I

- 1. Discrete Mathematics & Statistics
- 2. Fundamentals of Data Structures
- 3. Paradigms of Programming Languages
- 4. Digital Systems and Computer Architecture
- 5. Problem Solving & Programming in C
- 6. C Programming-Practicals
- 7. Data Structures Practicals through C
- 8. English for Professional Communication

Semester II

- 1. Optimization Techniques and Numerical Methods
- 2. Operating Systems
- 3. Database Management System
- 4. Data Communication and Networks
- 5. Web Technologies
- 6. Data Management System Practicals
- 7. Web Technologies Practicals

Semester III

- 1. Principles of Management & Accounting
- 2. Analysis & Design of Algorithms
- 3. Object Oriented Programming Through Java
- 4. Software Engineering & Project Management
- 5. Object Oriented Analysis & Design
- 6. PHP Programming Practicals
- 7. OOPS Through Java Practicals

Semester IV

- 1. System Software
- 2. Data Mining
- 3. TCP/IP Protocols
- 4. Linux OS and Shell Programming
- 5. Elective I
- 6. Linux OS & Shell Programming Practicals
- Mini Project Application Development

List of Electives

- 1. Microprocessors and Embedded Systems
- 2. Big Data Analytics
- 3. Cloud and Grid Computing
- 4. Social Network Analysis
- 5. Cryptography and Computer Security
- 6. Soft Computing

Semester V

- 1. User Interface Design
- 2. Knowledge Management and Business Intelligence
- 3. Enterprise Resource Planning

- 4. Advanced Java Programming
- 5. Elective II
- 6. Advanced Java Programming Practicals
- 7. Python Programming Practicals
- 8. Main Seminar Current Trends

List of Electives

- 1. Adhoc and Sensor Networks
- 2. Multimedia Systems
- 3. Information Security and E-Commerce
- 4. Digital Image Processing
- 5. Distributed Computing
- 6. Computer Graphics with OPENGL

Semester VI

- 1. Main Project
- 2. Viva Voce

Course Structure for MCA 2 Year

Semester III

- 1. Principles of Management & Accounting
- 2. Analysis & Design of Algorithms
- 3. Object Oriented Programming through Java
- 4. Software Engineering & Project Management
- 5. Object Oriented Analysis & Design
- 6. PHP Programming Practicals
- 7. OOPS through Java Practicals

Semester IV

- 1. System Software
- 2. Data Mining
- 3. TCP/IP Protocols
- 4. Linux OS and Shell Programming

- 5. Elective I
- 6. Linux OS & Shell Programming Practicals
- Mini Project Application Development

List of Electives

- 1. Microprocessors and Embedded Systems
- 2. Big Data Analytics
- 3. Cloud and Grid Computing
- 4. Social Network Analysis
- 5. Cryptography and Computer Security
- 6. Soft Computing

Semester V

- 1. User Interface Design
- 2. Knowledge Management and Business Intelligence

- 3. Enterprise Resource Planning
- 4. Advanced Java Programming
- 5. Elective II
- 6. Advanced Java Programming Practicals
- 7. Python Programming Practicals
- 8. Main Seminar Current Trends

List of Electives

- 1. Adhoc and Sensor Networks
- 2. Multimedia Systems
- 3. Information Security and E-Commerce
- 4. Digital Image Processing
- 5. Distributed Computing
- 6. Computer Graphics with OPENGL

Semester VI

- 1. Main Project
- 2. Viva Voce



- Consistent high pass percentages in the M.G. University Examinations.
- Pool of highly motivated and dedicated faculty members to widen the student's horizon of learning.
- Special Placement & Aptitude Training.
- Excellent placement support.
- MII MACFAST Industry Interface
- Students and faculty members continuously take up NPTEL online courses and certifications in various topics related to IT.
- Membership of CSI & UNAI
- Live Projects and Internship
- Entrepreneurship development initiative
- Sponsored seminars and workshops
- Extension services of MACFAST technologies and other budding enterprises at MACFAST

ELIGIBILITY CRITERIA

3-Year MCA Course (Regular)

Academic Requirements: A pass with not less than 50% marks in any recognized regular Bachelor's Degree course of minimum three years duration in any discipline with Mathematics at 10+2 level.

OR

A pass with not less than 50% marks in any recognized Regular Bachelor's Degree course of minimum three years duration in any discipline with Mathematics/ Statistics/Business Mathematics/Business Statistics as one of the Subjects

OR

A pass with not less than 50% marks in BCA/ B.Sc Computer Science/B.Sc Information Technology/ B.Tech degree of minimum three years duration from a recognized university.

- 1. Subject to the regulation relating to prescribed minimum of the respective qualifying examination, the minimum marks of admission to the course of studies shall be a pass in the case of SC/ST candidates.
- 2. Candidates belonging to Socially and Educationally Backward Classes (SEBC) shall be given a relaxation of 3% marks in the prescribed minimum for admission.
- 3. A relaxation of 5% marks from the prescribed minimum shall be allowed in the case of OEC Candidates.
- 4. A relaxation of 5% marks from the prescribed minimum shall be allowed in the case of physically handicapped persons.
- 5. Candidates who have passed the qualifying examination in more than one



- Candidate seeking admission to the course should be qualified from any university in Kerala or other universities, recognized by any of the universities in Kerala.
- 2. Final year regular Bachelor's Degree students are also permitted to appear for the Entrance Examination subject to the condition that the original degree certificate and mark lists of all the qualifying examination shall be produced by the candidate at the time of admission.

chance in the subject (excluding languages) will have their percentage marks derated at the rate of 5% for every additional appearance for the purpose of ranking.

2-Year MCA Course (Lateral Entry)

Academic Requirements: A pass with not less than 50% marks in BCA/B.Sc Computer Science/ B.Sc Information Technology/B.Tech CS/IT degree of minimum three years duration from a recognized university.

- 1. Subject to the regulation relating to prescribed minimum of the respective qualifying examination, the minimum marks of admission to the course of studies shall be a pass in the case of SC/ST candidates.
- 2. Candidates belonging to Socially and Educationally Backward Classes (SEBC) shall be given a relaxation of 3% marks in the prescribed minimum for admission.
- 3. A relaxation of 5% marks from the prescribed minimum shall be allowed in the case of OEC Candidates.
- 4. A relaxation of 5% marks from the prescribed minimum shall be allowed in the case of physically handicapped persons.
- 5. Candidates who have passed the qualifying examination in more than one chance in the subject (excluding languages) will have their percentage marks derated at the rate of 5% for every additional appearance for the purpose of ranking.

ADMISSION PROCEDURE

The selection will be in accordance with the candidate's rank in the state entrance examination, reservation status and availability of seats under various categories. The college follows the rules and regulations of Mahatma Gandhi University and Admissions Supervisory Committee (ASC) appointed by Govt. of Kerala.



MACFAST educates students in a very creative way and encourages them to think out of the box. The best faculty combined with the state of the art infrastructure enabled me to become a complete professional.

Mr. John Joseph Solution Test Engineer, Network Test Lab of HPE. Roseville, California

BEYOND THE SYLABUS

- Students are groomed to be Macfastians through an orientation program. This aims to bridge the gap and to transform and mould the MCA aspirants to inculcate MACFAST culture.
- Aptitude test training sessions are arranged for students regularly. A dedicated aptitude server is available to students as an online portal with a variety of aptitude questions and daily online mock tests. It helps students to practice aptitude anytime anywhere within the campus. It prepares them for the initial screening process of campus recruitment.
- Our student community is always benefited from our MACFAST placement cell which opens a new avenue to the corporate world. As a part of this, continuous placement training programmes on soft skills development, communication, group discussions, resume building etc. are provided.
- Additional training programmes on DotNET, Android, Photoshop and FLASH training programmes are given to prepare the students for a global career in computing and nurture competent professionals through real world projects, fostering continuous learning.
- One week MII (MACFAST Industry Interface) programme at CDAC Technopark, Thiruvanathapuram, along with one week in-house training on promising technologies: NodeJS, AngularJS, Hibernate, MyBatis, Spring framework, is offered to students to equip with latest technological advancements and instill corporate culture.
- Workshops and national/international seminars are conducted on a regular basis to broaden knowledge in the emerging technologies.

Scholastic Achievements

No.	Name	Year	Rank
1.	Nimitha Hameed	2001-04	1st Rank
2.	Rajani T. R.	2001-04	3rd Rank
3.	Hareesh S.	2002-05	1st Rank
4.	Sini Alex	2002-05	2nd Rank

Technological Innovation- Student Projects

- Bulk Emailer Application-eMACMailer: It's a desktop application using C#, which can send email over internet like gmail, yahoo etc.
- Online Admission portal: To enable candidates to apply for courses in MACFAST online. Developed using PHP MySQL.
- LifeTouch: A mobile app which will enable people in danger to send alert message to nearby hospital, police station, wellwisher etc. Developed using Android.
- Pambatheeram: A consultancy work done by students. It's a website developed for Ayurvedic Hospital. Developed using Adobe Flash and PHP.
- Economic GPS tracker using C#: A simple desktop application used to locate places geographically using the latitude and longitude and vice versa over the internet.

Funded Seminars & Projects

• One-year cyber programme entitled-"Cyber Law And Security Awareness (CLASA) Programme for the students of schools & colleges in Kerala" funded by Kerala State Council for Science, Technology and Environment (Rs. 2,00,000) in association with Kerala Police in the year of 2017-18.



MACFAST pushes you to take initiatives. There were lots of opportunities and events to gain Leadership Experience and Skills, which now helps me in my Career.

Lijoe Mathew Chromalloy Gas Turbine, New York



State level inauguration of 'CLASA' by **Shri. Loknath Behra**, DGP of Kerala

- "Two-day Workshop on Python Programming", December 2017 funded by KSCSTE, in association with CSI & UNAI
- Three-day International Research Workshop on "Coding Theory and Fractals with the Applications to Computer Science and Engineering", December 2016, in association with CSI and Kerala Mathematical Association.
- Two-day National Seminar on "Recent Research Opportunities in Computer Science and its Applications", September 2016, funded by KSCSTE



The plethora of industry interactions & invited talks by topnotch industrialists as well as renowned scientists at MACFAST offered me a glimpse of the challenges posed by the global environment and emerging technologies thereby making me fit for a global career

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Tiju Joseph System Admin. at Lethbridge Centre, Canada.

- "International Conference on Mathematical Modeling in Computer, Management and Medical Sciences" (ICMCMM 2013), funded by DST, in association with Pushpagiri Institute of Medical Sciences & Research Centre Tiruvalla, CSI and Kerala Mathematical Association.
- "International Conference on Mathematical Computing and Management" (ICMCM 2010), funded by DST and CSIR, in association with Victoria University, Australia, CSI and Kerala Mathematical Association.
- AICTE Sponsored "Advanced Level Intensive Training Programme in IT & Management", February 2009.
- "Workshop on Machine Learning Methods in Astronomy," January 2009, funded by IUCCA.
- AICTE Sponsored National Conference on Recent Development and Application of Probability Theory, Random Process and Random Variables in Computer Science, August 2008.
- AICTE Sponsored Staff Development Programme on Advanced Mathematics & Computer Science, December 2007.
- AICTE Sponsored National Conference on "Role of Mathematics & Computer Science in New Technologies", March 2007.
- AICTE Sponsored Intensive Training in Advanced Level Computer Applications & Technologies, March 2007.

FACULTY DETAILS

The best faculty combined with the state-of-the art infrastructure enable the optimal progression of students through scientific temper and dedication towards excellence. The department is equipped with an expert team of well qualified, experienced and committed faculty members.



No.	Name and Designation	Qualification	Area of specialization/ Research Interest	Experience
1.	Dr. M S Samuel Director	M. Sc, M. Phil, Ph. D (Mathematics)	Mathematical Foundations of Computer Science, Probability & Statistics, Data Mining, Computer Security, Analysis & Design of Algorithms	49 years
2.	Tiji Thomas, HoD & Associate Professor	MCA, M. Tech	Data Mining, Big Data Analytics, Image Processing	Corporate - 3 years Academic -17 years
3.	Dr. Nishad P. M. Associate Professor	M. Phil, Ph. D	Data Compression, Computational Complexity Theory, Cryptography, Data Structures, Object Oriented Technology, Image Processing, Data Mining, Biodiversity	12 years
4.	Ashokraj R. Associate Professor	MCA	MSI Technology, Artificial Intelligence	Corporate - 10 years Academic - 7 years
5.	Stephen James Assistant Professor	M. Tech, NET	Computation Biology	13 years
6.	Phijo J. Cherickal Assistant Professor	M. Sc, M. Phil, M. Tech	Computer Forensics, Neural Networks	14 years
7.	Ranjini Mariam Philipose, Assistant Professor	MCA	Big Data, Cloud Computing	8 years
8.	Sreelakshmi C. Warrier Assistant Professor	M. Phil, M. Sc, Ph. D (pursuing)	Optimization techniques, Data Mining, Fuzzy Set, Soft Set	8 years
9.	Thomas Mathew Assistant Professor	MCA, M. Tech	Computer Forensics, Cyber Security, Natural Language Processing	7 years
10.	Vidhya V. Kumar Assistant Professor	MCA	Data Mining, Data warehousing	4 years
11.	Oleena Thomas Assistant Professor	M. Tech, Ph.D(pursuing)	Data Mining, Big Data Analytics Cloud Computing	7 months
12.	Rani Susan Oommen Assistant Professor	M. Tech	Image Forensics, Artificial Intelligence	2 years
13.	Pavin Raj Assistant Professor	MCA	Cyber Security	3 years
14.	Poornima M Assistant Professor	MCA	Image Processing	3 years
15.	Jeena Sara Viju Assistant Professor	M.Tech (Computer Science & Engineering	Data Mining, Image Processing	1 year
16.	Brejit Lilly Abraham Assistant Professor	M.Tech (Computer Science & Engineering	Networking, Data Mining	1 year

APPROVED CENTRE OF DSIR, GOVT. OF INDIA

ALUMNI IN PRESTIGIOUS INTERNATIONAL INSTITUTIONS

TOP RANKS IN CSIR-UGC, JRF /GATE/ JGEEBILS AND UNIVERSITY EXAMS

RESEARCH PROJECTS AND INTERNATIONAL SEMINARS

COURSES IN BIOSCIENCE

CURRICULAR ASPECTS

The MACFAST School of Biosciences is focused on interdisciplinary research and teaching. The School runs six postgraduate programmes affiliated to M.G University viz., M.Sc. Bioinformatics, M.Sc. Biochemistry, M.Sc. Biotechnology, M.Sc. Food Technology and Quality Assurance, M.Sc. Phytomedical Science and Technology and M.Sc. Plant Biotechnology. From its inception, the School of Biosciences has been giving orientation for research. Many eminent scientists from National and International organizations work as Adjunct Professors. The enzyme database `MacENZ' developed by our students during 2005 had been widely appreciated by the scientific community. Research projects funded by government agencies like DST, DBT, NMPB, SMPB and KSCSTE are being carried out in the School. We also have collaboration with various industries like SAMI Labs, Bengaluru. The students are provided with maximum exposure in their field of study through interactions with renowned personalities from scientific organizations and the industry. They are also taken for industrial visits and study tours to various national organizations across the country. Along with the university syllabus, orientation and training for various National level competitive examinations like CSIR-UGC, GATE & ARS are also provided to all students. The students are encouraged to utilize the lab facilities during holidays and after regular working hours for doing miniprojects that will help them in gaining hands on experience in their field of specialization. Many of our alumni are working



at various International and National organizations like Charles Darwin University, Washington University, The Max Planck Institute of Biophysics, Hamburg University, Queensland University, Mayo Clinic, ICGEB, New Delhi; NCBS, Bengaluru; South Campus Delhi University, IISER Bhopal, JNTBGRI, Palode; Nestle India Pvt.Ltd., Cadbury India Pvt.Ltd., Pepsico Pvt. Ltd. etc.





COURSES
CONACO

ALL INICION

52

M.Sc. BIOCHEMISTRY20M.Sc. BIOINFORMATICS20M.Sc. BIOTECHNOLOGY12M.Sc. FOOD TECHNOLOGY AND QUALITY ASSURANCE30M.Sc. PHYTOMEDICAL SCIENCE AND TECHNOLOGY20M.Sc. PLANT BIOTECHNOLOGY20

No. of Seats



SCHEME AND SYLLABUS M.Sc. BIOCHEMISTRY

Semester I

- 1. Biochemistry
- 2. Biophysics, Bio Instrumentation and Bioinformatics
- 3. Physiology and Biostatistics
- 4. Cell Biology and Genetics
- 5. Laboratory Course I

Semester III

- 1. Enzymology
- 2. Plant Biochemistry
- 3. Molecular Endocrinology
- 4. Neurobiology
- 5. Laboratory Course-III

Semester II

- 1. General Microbiology
- 2. Immunology
- 3. Molecular Biology and Genetic Engineering
- 4. Metabolism and Bioenergetics
- 5. Laboratory Course-II

Semester IV

- 1. Elective 1
- 2. Elective 2
- 3. Elective 3
- 4. Laboratory Course IV
- 5. Projector Dissertation
- 6. Viva Voce

Eligibility: B.Sc. degree in Botany, Zoology, Biochemistry, Biophysics, Microbiology, Biotechnology, Chemistry or Physics with not less than 50% marks in Part III.

M.Sc. BIOINFORMATICS

Semester I

- 1. Introduction to Cell Biology and Biomolecules
- 2. Fundamentals of Applied Mathematics and Biostatistics
- 3. Genetics and Molecular Biology
- 4. Introduction to Computing and Bioinformatics
- 5. Laboratory Course 1

Semester III

- 1. Proteomics
- 2. Immunology
- 3. DBMS and Biological Databases
- 4. Bioinformatics in the future
- 5. Laboratory Course III

Semester II

- 1. Metabolism and Bioenergetics
- 2. General Microbiology
- 3. Genomics
- 4. Bioinformatics and PERL
- 5. Laboratory Course II

Semester IV

- 1. Elective 1
- 2. Elective 2
- 3. Elective 3
- 4. Laboratory Course 4
- 5. Project or Dissertation
- 6. Viva-Voce

Eligibility : B.Sc. in Biochemistry, Biophysics, Biotechnology, Plant Biotechnology, Bioinformatics, Botany, Zoology/Plant Biology/Chemistry/Computer Science, Computer Application, Electronics, Environmental Science, Mathematics, Microbiology, Physics and Statistics under Part III Core Group (Core + Complementary + Open Courses) with not less than CGPA of 2.00 out of 4.00 or B.Tech/ B.E.



M.Sc. BIOTECHNOLOGY

Semester I

- 1. Biochemistry
- 2. Cell Biology and Genetics
- 3. Biophysics and Bioinformatics
- 4. Instrumentation and Biostatistics
- 5. Laboratory Course I

Semester III

- 1. Bioprocess Technology
- 2. Recombinant DNA Technology
- 3. Plant and Animal Biotechnology
- 4. Environmental Biotechnology
- 5. Laboratory Course III

Semester II

- 1. Microbiology
- 2. Immunology
- 3. Molecular Biology
- 4. Metabolism and Enzymology
- 5. Laboratory Course II

Semester IV

- 1. Laboratory Course IV
- 2. Project
- 3. Viva Voce
- 4. Elective 1
- 5. Elective 2
- 6. Elective 3

Eligibility: B.Sc. degree in Botany, Zoology, Biochemistry, Biophysics, Microbiology, Biotechnology, Chemistry or Physics with not less than 50% marks in Part III.

M.Sc. FOOD TECHNOLOGY AND QUALITY ASSURANCE

Semester I

- 1. Basic Biochemistry
- 2. General Microbiology
- 3. Food Chemistry
- 4. Introduction to Food Science and Technology
- 5. Practical: Biochemistry
- 6. Practical: Microbiology

Semester III

- 1. Technology of Cereals, Pulses and Oil seeds
- 2. Technology of Milk, Meat, Poultry & Fish
- 3. Technology of Beverages
- 4. Technology of Fruits and Vegetables
- 5. Practical-Processing Technology of Animal-based Foods Practical- Processing Technology of Agro-foods

Semester II

N STEM JEL

PAPAYA JEU

PAPAYA JAM

- 1. Food Engineering
- 2. Food Additives and Packaging Technology

PLANTAIN

MANGO JAM

GUA

PINEAPPLE JAM

PAPAYA MANG

- 3. Food Spoilage and Preservation Technology
- 4. Food Analysis
- 5. Practical: Food Preservation and Packaging Technology
- 6. Practical: Food Analysis I

Semester IV

- 1. Elective 1
- 2. Elective 2
- 3. Elective 3
- 4. Practical: Food Analysis II
- 5. Practical: Food Processing
- 6. Project Evaluation and Viva Voce

Eligibility: Graduation in Science or Technology having Food Science, Food Technology, Chemistry, Biochemistry, Physics, Botany, Zoology, Family & Community Science, Microbiology or Nutrition as one of the subjects with not less than CGPA Of 2.00 out of 4.00 in the Core Group (Core + Complementary + Open Courses).



M.Sc. PHYTOMEDICAL SCIENCE AND TECHNOLOGY

Semester I

- 1. Systematic Botany, Biodiversity and Economic Botany
- 2. Medicinal and Aromatic Plants: Conservation, Cultivation and Management
- 3. Introduction to Traditional and Modern Systems of Medicine
- 4. Laboratory Course I

Semester III

- 1. Cell Biology and Biotechnology
- 2. Phytochemistry
- 3. Pharmacognosy
- 4. Laboratory course-III

Semester II

- 1. Principles of Management
- 2. Plant Physiology, Biochemistry and Ecology
- 3. Microbiology
- 4. Plant Molecular Biology
- 5. Laboratory Course-II

Semester IV

- 1. Elective 1
- 2. Elective 2
- 3. Elective 3
- 4. Laboratory course-IV
- 5. Project or Dissertation
- 6. Viva Voce

Eligibility: B.Sc. in Biotechnology, Pharmacology, Biophysics, Medicine, Veterinary Science, Biochemistry, Chemical Science and other Biological Sciences under Part III Core Group (Core + Complementary + Open Courses) with not less than CGPA of 2.00 out of 4.00. BAMS/BHMS/ BSMS/B Pharm with not less than CGPA of 2.00 out of 4.00 are also eligible to apply.

M.Sc. PLANT BIOTECHNOLOGY

Semester I

58

- 1. General Biochemistry
- 2. Microbiology and Immunology
- 3. Bioanalytical Techniques
- 4. Plant Developmental Biology
- 5. Laboratory Course I

Semester III

- 1. Plant Metabolism
- 2. Tissue Culture Techniques for Crop Improvement
- 3. Biotechnology, Environment and Intellectual Property Rights and Patenting
- 4. Bioprocess Technology and Engineering
- 5. Laboratory course III

Semester II

- 1. Basics of Plant Tissue Culture
- 2. Principles of Genetic Engineering and Recombinant DNA Technology
- 3. Plant Pathology
- 4. Biomass and Bioenergy
- 5. Laboratory Course II

Semester IV

- 1. Elective 1
- 2. Elective 2
- 3. Elective 3
- 4. Laboratory course IV
- 5. Project or Dissertation
- 6. Viva Voce

Eligibility: B.Sc. Botany, Biochemistry, Biotechnology, Microbiology, Agricultural Science, Environmental Science under Part III Core Group (Core + Complementary + Open Courses) with not less than CGPA of 2.00 out of 4.00.



ADMISSION PROCEDURE

M.G. University will announce for the admission to M.Sc. courses. Selection of candidates for the entire courses mentioned will be on the basis of general merit in subjects of specialization in their graduation. 50 % of seats for all M.Sc. courses are admitted through M.G. University PGCAP notified by the University, the rest is admitted directly by the college.

HIGHLIGHTS

- Externally funded projects worth 1 crore from various government agencies like DST, DBT, KSCSTE, National Medicinal Plant Board etc.
- First Food processing pilot plant in Kerala sponsored by Govt. of India
- Collaboration with reputed industries like SAMI Labs Bengaluru
- Free coaching for CSIR-UGC, ARS and GATE examinations
- Frequent interactions with International and National Scientists
- Alumni working across the globe in reputed institutions



MACFAST created a global knowledge hub that helped me to explore the international opportunities.



Remya Nair Research Scientist Washington University, St. Loius, USA



A unique campus that promote students to think ahead of time and mold them to become international trendsetters.

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Shameer Khader

Ph.D Program Director (Healthcare Data Science and Bioinformatics) at Northwell Health Hospital & Health Care Lake Success, NY

BEYOND THE SYLABUS

- Students and faculty members have taken up various Science related certification courses offered by NPTEL, a joint initiative of IIT and IISc.
- Amrita Virtual Lab is provided to all students for enhancing their practical skills.
- In honor of the great Indian scientist, Prof. G. N. Ramachandran, a Science Club was established in 2014. The science club conducts discussions by students on recent developments in science and technology every week through Monday seminars. Invited talks by renowned entrepreneurs and young scientists are also organized under the auspices of the science club.
- To bridge the gap among the students coming from different academic disciplines, orientation programs are conducted during the induction period. Soft skill training is also provided during the programme.
- CSIR-UGC, GATE, ARS examination oriented teaching.
- In addition to the M.G. University syllabus, all students are encouraged to enroll in various Certificate Programmes conducted by the School of Biosciences - Certificate programmes in Bioinformatics, Industrial Microbiology, Plant Tissue Culture, Mushroom Culture, Chromatographic Techniques, Chocolate and Cake Making and Molecular Biology Techniques.



Padma Vibhushan Shri. G. Madhavan Nair Former Chairman of ISRO and Secretary to the Department of Space, Government of India.



Prof. Ananda Mohan Chakrabarty, Former scientist, General Electric Company, Schenectady, New York



Prof. M. R. N. Murthy, IISc Bengaluru

- The School of Biosciences frequently organizes national and international conferences for the benefit of students. Most of these programs are funded by government agencies. These programs provide a platform for students to interact with the experts in the field of specialization.
- In order to provide scientific exposure, the students are taken for study tours to various national research institutes across the country. Our students have visited institutions including Wadia Institute of Himalayan Geology, Dehradun; Forest Research Institute,



Dr. Shashi Tharoor, Former Union Minister, Govt. of India & Under-Secretary General, United Nations

Dehradun; Indian Institute of Petroleum, Dehradun; Lal Bahadur Shastri National Academy of Administration, Mussoorie; National Institute of Plant Genome Research, Delhi; Jawaharlal Nehru University, Delhi; South Campus, University of Delhi; Indian Institute of Information Technology, Allahabad; NCBS Bengaluru; JNCASR Bengaluru; IISc Bengaluru; CFTRI Mysore; IIT Madras, RGCB Trivandrum; Sree Chitra Tirunal Institute of Medical Science and Technology Trivandrum; JNTBGRI Palode and IISER Trivandrum.



Dr. Michael Sauer, CD Laboratory for Biotechnology of Glycerol, Department of Biotechnology, BOKU - University of Natural Resources and Applied Life Sciences, Muthgasse 18, 1190 Wien, Austria

SCHOLASTIC ACHIEVEMENTS

Name	Year	Rank	Subject
Parvathy Nandakumar	2016-2018	First Rank	Plant Biotechnology
Parvathy J.	2016-2018	Second Rank	Plant Biotechnology
Annu S. George	2016-2018	Third Rank	Bioinformatics
Ms. Steffimol Rose	2014-2016	First Rank	M.Sc. Bioinformatics
Ms. Shijila Mathew	2014-2016	Third Rank	M.Sc. Food Technology & Q A
Ms. Suparna S.	2014-2016	Third Rank	M.Sc. Bioinformatics
Ms. Vinija V.	2013-2015	Second Rank	M.Sc. Bioinformatics
Ms. Ammu Mathen	2011-2013	First Rank	M. Sc. Food Science and Technology
Ms. Meera Liz Joji	2011-2013	Second Rank	M. Sc. Food Science and Technology
Ms. Nikitha K.	2011-2013	Third Rank	M. Sc. Food Science and Technology
Ms. Dani Joseph	2010-2012	Third Rank	M.Sc Bioinformatics
Ms. Sanuja Samad	2010-2012	Third Rank	M.Sc Biochemistry
Ms. Nimisha V. Satheesh	2010-2012	First Rank	M. Sc. Food Science and Technology
Ms. Jovan C. Jose	2010-2012	Second Rank	M. Sc. Food Science and Technology
Ms. Sumayya Kalam	2010-2012	Third Rank	M. Sc. Food Science and Technology
Ms. Neethu Ravikumar	2009-2011	First Rank	M. Sc. Food Science and Technology
Ms. Vineeta Subhash Tare	2009-2011	Second Rank	M. Sc. Food Science and Technology
Ms. Kanaka Sunil Joshi	2009-2011	Third Rank	M. Sc. Food Science and Technology
Ms. Minu Mary John	2008-2010	First Rank	M. Sc. Plant Biotechnology
Ms. Reshma Sampath	2008-2010	First Rank	M. Sc. Food Science and Technology
Mr. Abdul Gafoor	2008-2010	Second Rank	M. Sc. Food Science and Technology
Mr. Ajith George Joseph	2008-2010	Third Rank	M. Sc. Food Science and Technology
Ms. Chandni Valson	2007-2009	First Rank	M. Sc. Bioinformatics
Ms. Deepika T. C.	2007-2009	Second Rank	M. Sc. Bioinformatics
Ms. Jelin Achamma Andrews	2007-2009	First Rank	M. Sc. Food Science and Technology
Ms. Laya Oomman	2007-2009	Second Rank	M. Sc. Food Science and Technology
Mr. Jaseel J.	2007-2009	Third Rank	M. Sc. Food Science and Technology
Ms. Sheeba Seemon	2007-2009	Third Rank	M. Sc. Biochemistry
Ms. Anupama V.	2006-2008	First Rank	M. Sc. Biochemistry
Ms. Anu V. Ajith	2006-2008	Second Rank	M. Sc. Biochemistry
Ms. Renjisha R. P.	2006-2008	First Rank	M. Sc. Plant Biotechnology
Ms. Reen Elizabeth Abraham	2006-2008	Second Rank	M. Sc. Plant Biotechnology
Ms. SujaLekshmi B. S.	2006-2008	Third Rank	M. Sc. Plant Biotechnology
Ms. Anusha R.	2006-2008	First Rank	M. Sc. Food Science and Technology
Ms. Teena Ann Mathew	2006-2008	Second Rank	M. Sc. Food Science and Technology

Ms. Remitha Thomas	2006-2008	Third Rank	M. Sc. Food Science and Technology
Ms. Anju Elgin	2005-2007	First Rank	M. Sc. Plant Biotechnology
Ms. Minu M.	2005-2007	Second Rank	M. Sc. Plant Biotechnology
Ms. Darsana K. M.	2005-2007	Third Rank	M. Sc. Plant Biotechnology
Ms. Pinchu Elizabeth Thomas	2005-2007	First Rank	M. Sc. Food Science and Technology
Ms. Indu Bala	2005-2007	Second Rank	M. Sc. Food Science and Technology
Ms. Anu Chacko K.	2005-2007	Third Rank	M. Sc. Food Science and Technology
Ms. Reena E. R.	2005-2007	Second Rank	M. Sc. Bioinformatics
Ms. Lekshmi K. R.	2004-2006	Second Rank	M. Sc. Biochemistry
Ms. Asisha S. Nair	2004-2006	Third Rank	M. Sc. Biochemistry
Ms. Minetta Merin John	2004-2006	First Rank	M. Sc. Bioinformatics
Ms. Sheeba Mathew	2004-2006	First Rank	M. Sc. Plant Biotechnology
Ms. Linu Varghese	2004-2006	Second Rank	M. Sc. Plant Biotechnology
Mr. Vineesh P. S.	2004-2006	Third Rank	M. Sc. Plant Biotechnology
Ms. Diana Dennis	2004-2006	First Rank	M. Sc. Food Science and Technology
Ms. Bapitha Lal B	2004-2006	Second Rank	M. Sc. Food Science and Technology
Ms. Rubeena K.	2004-2006	Third Rank	M. Sc. Food Science and Technology
Ms. Nimmy Abraham	2003-2005	First Rank	M. Sc. Food Science and Technology
Ms. Sreekala S.	2003-2005	Second Rank	M. Sc. Food Science and Technology
Ms. Raba A. R.	2003-2005	Second Rank	M. Sc. Food Science and Technology
Ms. Nicy John	2003-2005	Third Rank	M. Sc. Food Science and Technology
Ms. Remya Nair	2003-2005	First Rank	M. Sc. Plant Biotechnology
Ms. Annie P. Augustine	2003-2005	Second Rank	M. Sc. Plant Biotechnology
Ms. Vidya V.	2003-2005	Third Rank	M. Sc. Plant Biotechnology
Ms. Caroline Koshy Kurian	2003-2005	First Rank	M. Sc. Bioinformatics
Ms. Delisha Ann Thomas	2003-2005	Second Rank	M. Sc. Bioinformatics
Ms. Sherin Mary Kurien	2003-2005	Third Rank	M. Sc. Bioinformatics
Mr. Shameer P. K.	2002-2004	First Rank	M. Sc. Bioinformatics
Mr. Stephen James	2002-2004	Second Rank	M. Sc. Bioinformatics
Ms. Achu Sunitha Varghese	2002-2004	Third Rank	M. Sc. Bioinformatics



Tiny Chacko, First Semester Biochemistry and Banu T. Babu, First Semester Phytomedical Sciences and Technology won Third Prize in the intercollegiate Quiz competition conducted by Pusphagiri Medical College on 29th September 2018.

Rixon Raj, Biochemistry Qualified GATE 2018 LIFE SCIENCES.

Ms. Aleena T. Mathews and Mercy Jose of M.Sc. Food Technology and Quality Assurance (2016-18 batch) received the Scholarship of Association of Food Scientists and Technologists India (AFSTI) for the year 2016-17.

CSIR-UGC / GATE / ARS Qualified Students

- Ms. Swathy S. Nair, M.Sc. Biotechnology Stu dent (2013-15 batch) -Qualified CSIR- UGC JRF Examination, December 2016.
- Ms. Pinchu Elizabath Thomas, M.Sc. Food Science and Technology (2005-07 batch)- Qualified ARS NET Examination, 2016
- Ms. Akhila B., M.Sc. Biochemistry Student (2013-15 batch) -Qualified CSIR- UGC NET Examination, December 2015.
- Ms. Ashina Muhammed, M.Sc. Biochemistry Student (2011-13 batch)
 Qualified CSIR- UGC NET Examination, December 2015.



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MACFAST made me dream higher and set goals to make the impossible possible.

Jyothish M. S.

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Research Scholar, Delhi University South Campus

- Mr. Ajith Ashokan, M.Sc. Plant Biotechnology Student (2009-11 batch) - Qualified CSIR-JRF Examination, June 2014 (All India Rank: 28th) and GATE Examination 2014 (49th rank).
- Mr. Rixon Raj, M.Sc. Biochemistry Student (2011-13 batch) - Qualified CSIR-UGC JRF Examination, June 2014. He is placed 58th position at the All India Level.
- Ms. Hina Muhammed, M.Sc. Plant Biotechnology Student (2007-09 batch) - Qualified CSIR-UGC NET Examination, June 2014
- Mr. Harinandanan, M.Sc. Plant Biotechnology Student (2009-11 batch) Qualified GATE 2012

Achievements of ALIMM / STUDENTS

- Remya Nair (M.Sc. Plant Biotechnology 2003-2005), Washington University, St. Loius Research Scientist, NSF-NNIN Nano Research Facility, One Brookings Drive, Washington University in St. Louis MO- 63130
- Shameer Khader, (2002-2004 M.Sc. Bioinformatics) Program Director (Healthcare Data Science and Bioinformatics) at Northwell Health Hospital & Health Care, Lake Success, NY
- Harinandanan P. V., (2009-2011, M.Sc. Plant Biotechnology) (Recipient of Charles Darwin International Scholarship), Charles Darwin University Australia
- Ajith Ashokan (2009-2011, M.Sc.Plant Biotechnology), (CSIR-UGC JRF All India Rank 28th) Research Scholar, IIS-ER Bhopal
- Jyothish M. S. (2009-2011, M.Sc. Plant Biotechnology), Research Scholar, Department of Plant Molecular Biology, Delhi University South Campus
- Swathi S. Nair (M.Sc. Biotechnology 2013-15), Research Scholor, Sree Chitra Thirunal Institute of Medical Sciences and Technology
- Ms. Dani S. (M.Sc. Bioinformatics 2010-12 batch) batch qualified TOFEL and is doing M.S. in Cell and Molecular Biology in the Biomedical Sciences Department at Missouri State University, U.S.A
- Caroline Koshy (2003-2005 M.Sc. Bioinformatics), Research Scholar, Max Planck Institute of Biophysics, Germany
- Ms. Neha Lukose, Ms. Surya B. S., Ms. Kamalpriya M., Ms. Unnimaya G., Ms. Chandini Thankachan, Ms. Ashifa N., Ms. Ajmi S. and Ms. Aswathy A. S. were selected for the PG Students Interactive Session organized during the 30th Kerala Science Congress held at Thalaserry from 28th -30th January 2018.
- Mr. Abhijith M. Anand of M.Sc. Bioinformatics (2016-18 batch) presented paper in the International Symposium

Bioinformatica Indica 2018 organized by University of Kerala from 8th to 10th January 2018.

- Ms. Aleena T. Mathews and Ms. Mercy Jose of M.Sc. Food Technology and Quality Assurance (2016-18 batch) received the Scholarship of Association of Food Scientists and Technologists India (AFSTI) for the year 2016-17.
- Mr. Lijoy M. and Ms. Dipha of M.Sc. Plant Biotechnology (2015-17 batch) received grant from KSCSTE under student project scheme, 2017.
- Mr. Shone Thomas Mathew of M.Sc. Biochemistry (2015-17 batch) received third prize in the inter-collegiate power point presentation competition conducted by Mar Thoma College, Tiruvalla on 30th September 2016 in connection with World Ozone Day Observance 2016.
- Ms. Nithya Prabhakar of M.Sc. Food Technology and Quality Assurance student (2015-17 batch) received second place in the inter-collegiate painting competition conducted by NSS College, Pandalam on 26th September 2016 in connection with World Ozone Day Observance 2016.
- Ms. Keerthana S. of M.Sc. Food Technology and Quality Assurance Student (2014-16 batch) received UGC PG Indira Gandhi Scholarship For Single Child (F8-1/2014 (SA-III) 17-03-2015).
- Ms. Sreeja S., Research Scholar, received best poster award in the International Conference On radiation Research: Impact on Human Health and Environment organized by Society for Radiation Research at BARC, Mumbai during 11-13th February 2016.
- Ms. Ruby Varghese, Research Scholar, received the best poster award in the 28th Kerala Science Congress organized by KSCSTE, CWRDM and University of Calicut during 28-30th January 2016.
- Mr. Ahmaded Nabeel, Ms. Srutimol S. Kumar, Ms. Anuja A. Nair, Ms. LidaLalu, Ms. Retty, Ms. Arathy, Ms. Devika V. A. and Ms. Anju were selected for the PG Students Interactive Session organized during the 28th Kerala Science Congress held at Malappuram 28th to 30th January 2016.
- Mr. Sebin Sebastain of M.Sc. Food Technology and Quality Assurance (2014-16 batch) was selected for National Science Academies' Summer Research Fellowship Programme, 2015.
- Ms. Steffimol Rose, Ms. Mitha Justin, Ms. Rretty Rachael, Mr. Nino Joseph, Ms. Akhila Ravi, Ms. Reshma Anthony, Ms. Aparna Abhimanyu, Ms. Samitha Sara, Mr. Naveen S., Ms. Veni S. Raj, Ms. Amina S., Ms. Jemi Simon and Ms. Anjaly S. were selected for attending the National Colloquium on Nuclear Magnetic Resonance (NMR) and Mass Spectrometry organized by Srinivasa Ramanujan Institute for Basic Science (A Capacity Building Initiative of KSCSTE) from 31st July to 2nd August 2015.



MACFAST culture of interdisciplinary learning helped to chase my dream research in the field of systematics. The academic ambience instilled confidence to crack various competitive exams like CSIR and GATE'

Ajith Ashokan Research Scholar, IISER, Bhopal

- Ms. Mitha Justine, Ms. Akhila Ravi, Ms. Steffimol Rose, Mr. Jithin and Mr. Sooraj were selected for the PG Students Interactive Session organized during the 27th Kerala Science Congress held at Alapuzha from 27-30 January 2015.
- Ms. Sumi T. N. of M.Sc. Plant Biotechnology Student (2013-15 batch) received fund under Student Project scheme from Kerala State Council for Science Technology and Environment in the year 2015.
- Mr. Somy Varghese of M.Sc. Plant Biotechnology Student (2012-14 batch) received fund under Student Project scheme from Kerala State Council for Science Technology and Environment in the year 2014.

- Mr. Ratheesh C. T. of M.Sc. Bioinformatics (2012-14 batch) received DBT Student Fellowship for doing project at CPCRI Kasargod in the year 2014.
- Ms. Divya Elizabeth John of M.Sc. Food Science and Technology (2010-12 batch), received PG Indira Gandhi Scholarship For Single Girl Child for the year 2012-14.
- Mr. Jyothish M.S. of M.Sc. Plant Biotechnology (2009-11 batch) received National Science Academies' Summer Research Fellowship Programme 2011.

FUNDED SEMINARS

- Workshop on Medicinal Plants Conservation, cultivation and value addition sponsored by State Medicinal Plants Board, Kerala, 17th and 18th May 2018
- Kerala State Council for Science Technology and Environment sponsored Seminar on Scientific Innovations for Sustainable Development organized in connection with the National Science Day Celebrations 2018 on 26th February 2018.
- Science popularization programme -"Two Day Workshop on Scientoons as a Medium of Science Learning" sponsored by Kerala State Council for Science Technology and Environment on 21st and 22nd November 2017.
- "Hands-on training on Plant Tissue Culture techniques and Applications" from 2nd to 12th August 2017 sponsored by Kerala Biotechnology Commission
- Two day lecture workshop on Recent Advances in Biophysics organized and sponsored by Indian Academy of Science, Bangalore, Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad, 15th -16th June 2017.
- Jackfruit-Mango-Papaya Fest in collaboration with YMCA Thiruvalla from 8th May to 14th May 2017
- Seminar on Chromosomal Abnormalities and its Impact on Human Life, organized as part of National Science Day Celebrations 2017 sponsored by Kerala State Council for Science Technology and Environment,23rd Feb 2017.



Prof. S. Murty Srinivasula, IISER Thiruvananthapuram

- Workshop on 'Patent Information and Drafting For R & D And Industry' sponsored by Kerala State Council for Science Technology and Environment on 22nd December 2016
- Two day lecture workshop "Lecture Workshop on Recent Advances in Life Sciences" organized during 11th and 12th April 2016 sponsored by Indian Academy of Science, Bangalore, Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad
- Seminar on "Seminar on Recent Innovations In Biomaterial Research From India" organized as part of National Technology Day Celebrations 2016 sponsored by Kerala State Council for Science Technology and Environment, 26th February 2016.
- Skill Development Training Programme in food Processing during Feb 4 to Feb 16, 2016 in association with DIC Pathanamtitta
- "Hands-on training on Plant Tissue Culture techniques and Applications" from 7th to 18th January 2016 sponsored by Kerala Biotechnology Commission
- International Conference on Advances in Bioprocess Technology sponsored by DST, Govt.of India and KSCSTE, Govt.of Kerala during 26th to 28th Nov 2015
- IISER Pune Lecture Workshop on Recent Trends in Life Sciences (IISER Pune outreach programe) on 26th June 2015
- Seminar on "Technological Advances in Biomedical Research in India" organized as part of National Technology Day Celebrations 2015 sponsored by Kerala State Council for Science Technology and Environment,11th May 2015



Prof. (Dr.) Ramaswamy S., Dean, Institute of stem cell biology and regenerative medicine (inStem), Bengaluru. Founding CEO of C-CAMP, Bangalore-Biocluster

- Seminar on "Seminar on Recent Advances in Plant Science -Metabolic Engineering of Food Crops for the food Security of Nation" organized as part of National Science Day Celebrations 2015 sponsored by Kerala State Council for Science Technology and Environment, 28th Feb 2015
- EDP programme on food processing sponsored by DIC (District Industries Commission), Pathanamthitta, 5th to 9th January 2015
- EDP programme on food processing sponsored by DIC (District Industries Commission), Mavelikkara, 22nd January 2015
- Seminar on "Fostering Scientific Temper for the Upliftment of Society" organized as part of National Science Day Celebrations 2014 sponsored by Kerala State Council for Science Technology and Environment, 28th Feb 2014
- National Technology Day Celebration, sponsored by Kerala State Council for Science Technology and Environment on 9th and 13th May 2014 (T.K Jose, IAS, Coconut Development Board Chairman, Dr.B. Jacob, Managing Director, Food Safety Academy Cochin).
- Two day Lecture Workshop on 'Molecular Biology in 21st Century' organized during 28th -29th March 2014 sponsored by Indian Academy of Science, Bengaluru, Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad.
- International Symposium on "Computational Biology and Drug Design", 10th July to 12th July 2013 sponsored by
- Seminar on "Relevance of GM Crops in Food Security" organized as part of National Science Day Celebrations 2013 sponsored by

Kerala State Council for Science Technology and Environment,28th Feb 2013

- International Symposium and Congress on Advances in Herbal Science and technology, 25-27th November 2011 sponsored by KSC-STE.
- Seminar on Alternative Sources of Energy 28th February 2011 sponsored by KSCSTE
- National Symposium on Recent Trends in Algal Biotechnology August 3-5,2010 sponsored by DST
- Two day lecture workshop "Evolution and Natural Selection" organized during 29th and 30th January 2009 sponsored by Indian Academy of Science, Bengaluru, Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad.
- International Symposium. Second Green Revolution: Priorities, Programmes, Social and Ethical Issues organized during 2-4 July 2009 at Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram sponsored by DBT, CSIR, ICMR, BARC, KSCSTE, Medicinal Plant Board
- International Symposium on "Food Biotechnology and Nutrition" held at MACFAST on 31st Nov and 1st Dec 2008 sponsored by DST.
- Two day Lecture Workshop on 'Gene Structure and Function – Concepts to New Developments' organized during 31 January and 1 February 2008 sponsored by Indian Academy of Science, Bengaluru, Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad.



- 1. Orientation Programme on Advances and Avenues in Science for School Students funded by KSCSTE, Govt. of Kerala; Amount Rs.2 lakhs; Period 2017
- 2. Establishment of a herbal garden for mass education and wide spread cultivation by raising herbal nursery funded by Medicinal Plant Board, Govt. of India Amount; Rs 2.5 Lakhs; Period-2014-19
- 3. Environment Education Workshop using Games & Activities funded by KSCSTE, Govt. of Kerala; Amount Rs.2 lakhs; Period 2016

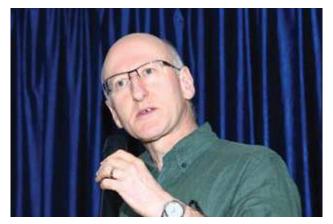
4. Production of callus from *Indigofera tinctoria Lin.*, as an alternate source for the production of natural hair dyes; Period 2017-18 funded by KSCSTE, Govt. of Kerala

COMPLETED PROJECTS

- Establishment of a herbal garden for mass education and wide spread cultivation by raising herbal nursery funded by Medicinal Plant Board, Govt. of India Amount; Period, 2014-19
- Induction of multiple shoots from the cotyledonary node of *Aegle marmelose (L.) Corr* funded by KSCSTE, Govt. of Kerala, Period 2015-16
- Production of callus from *Indigofera tinctoria Lin.*, as an alternate source for the production of natural hair dyes; Period 2017-18 funded by KSCSTE, Govt. of Kerala
- Initiation of Somatic Embryos from the leaves of Coleus vettiveroides Jacob funded by KSCSTE, Govt. of Kerala; Period 2015-16
- Food toxin portal funded by KSCSTE, Govt. of Kerala; Period 2015-16
- Medicinal Macrofungi: Their nutritional value and Medicinal properties funded by Department of Science & Technology, Govt. of India; Period 2012-15
- In vitro culture of *Gloriosa superba L.*, an endangered medicinal plant; funded by KSCSTE, Govt.of Kerala funded by KSCSTE, Govt. of Kerala; Period 2014-15



Dr. Muhammed Majeed, Founder & Managing Director of Sami Labs Limited



Prof. Jonathon Noë Joseph Pines FRS, Head of the Division of Cancer Biology, Institute of Cancer Research, London.

- Antiarthritic, antioxidant and anti-inflammatory properties of marine algae of Southern India funded by Department of Science & Technology, Govt. of India; Period 2012-15
- Callus initiation from the immature flower buds of *EnsetesuperbumRoxb;* funded by KSCSTE, Govt. of Kerala; Period 2012-13
- Developing a protocol for in vitro propagation of screw pines; funded by KSCSTE, Govt. of Kerala; Period 2012-13
- Development of an in vitro protocol for rapid multiplication of *Rhizophora mucronata*, a vulnerable plant funded by KSCSTE, Govt. of Kerala; Period 2010-11
- Fish Collagen from Under Utilized Marine Resources of Kerala; funded by KSCSTE, Govt. of Kerala; Period 2009-12
- Integrated Technology for the Development of Reinforced Bioplastics funded by Department of Biotechnology, Govt. of India; Period 2008-11
- Development of Optical fiber Biosensors based on ATP-Bioluminescence assay for rapid hygiene monitoring in hospitals for effective deterrence of nosocomial infections; funded by Department of Science & Technology, Govt. of India; Period 2008-11
- Algal Resources of South- West Coast of India –Systematic Study and Evaluation as Food and Nutritional Supplements funded by Department of Science & Technology, Govt. of India; Period 2007-10
- Pilot plant and Incubation centre funded by Ministry of Food Processing Industry, Govt. of India; Period 2007-10.
- Protocol development of Micropropagation of Nutmeg (Myristica fragrance); funded by KSCSTE, Govt. of Kerala; Period 2005-08.

FACULTY DETAILS

Dr. C. Balagopalan - Emeritus Scientist - Former Scientist CTCRI (ICAR) Sreekaryiam, Trivandrum

Dr. Ashok Pandey - Adjunct Professor - Former Deputy Director, NIIST (CSIR), Trivandrum

Dr. Michael Sauer - Adjunct Professor, CD Laboratory for Biotechnology of Glycerol, Department of Biotechnology, BOKU, University of Natural Resources and Applied Life Sciences, Muthgasse 18, 1190 Wien, Austria

No.	Name and Designation	Qualification	Area of specialization/ Research Interest	Experience
1	Prof. Beena Cherian Dean	M.Sc., Qualified NET & SET PG Diploma in Nutrition and Dietetics; Pursuing Ph.D	Mushroom Cultivation and its Processing	21 years of teaching experience, Former Principal, College of Indig- enous Food Technology, Konni.
2	Biju Dharmapalan HoD	M.Sc., M.Phil., Qualified NET and GATE University Rank Holder	Plant Tissue Culture and Phytochemistry	18 years of teaching/ research experience, Listed as DST-INSPIRE Mentor, Govt. of India; Listed in the Data Base of Science Communica- tors in India, published by Vignan Prasar, DST, Govt. of India.
3	Dr. Treesa Varghese Associate Professor	M.Sc., Ph.D	Protein Characterization	10 years of teaching experience
4	Dr. Jenny Jacob Associate Professor	M.Sc., Ph.D. Qualified NET & GATE	Enzyme Inhibition, Medicinal Plants and Inflammation	9 years of teaching experience
5	Pinchu Elizabath Thomas Assistant Professor	M.Sc., Qualified NET, University Rank Holder	New Food Product Development, Bakery and Confectionery	10 years of teaching experience, Trainer in Chocolate making & Cake art
6	Sini Kurien Assistant Professor	M.Sc., PG Diploma in Bioinformatics	Computational Biology	9 years of teaching experience
7	Stephen James Assistant Professor	M.Sc., MCA, M.Tech., NET Qualified University Rank Holder	Computational Biology	13 years of teaching experience
8	Gipthi Mohan Assistant Professor	M.Sc. University Rank Holder	Food Processing and Analysis	6 years of teaching experience
10	Blessan Santhosh George Assistant Professor	M.Sc., Ph.D Thesis submitted to FRI University Qualified NET & GATE	Isolation and Characteriza- tion of Novel Genes	3 years of teaching experience and 4 years of research experience
11	Samitha Sara Abraham Assistant Professor	M.Sc.	Molecular Characterization of Genes and Microbiology	1 year of teaching experience
12	Gigin Pullemkunnel Assistant Professor	M.Tech University rank holder	Computational Biology	1 year of teaching experience
13	Ebin Philip Thompson Assistant Professor	M.Tech.,University Rank Holder; Qualified BEC exam conducted by University of Cambridge	Cancer Biology	1 year of teaching experience
14	Dr. Shilpa Lekshmi Assistant Professor	PhD., University Rank Holder	Medical Biochemistry	7 years teaching/research experience
15	Ann Mary C. Simon Assistant Professor	M.Sc.,University Rank Holder; Qualified Aptis of British council	Microbiology New product development	2 years industrial experience
16	Femin Uthup Assistant Professor	M.Tech., University Rank Holder	Plant biotechnology	1 year industrial experience

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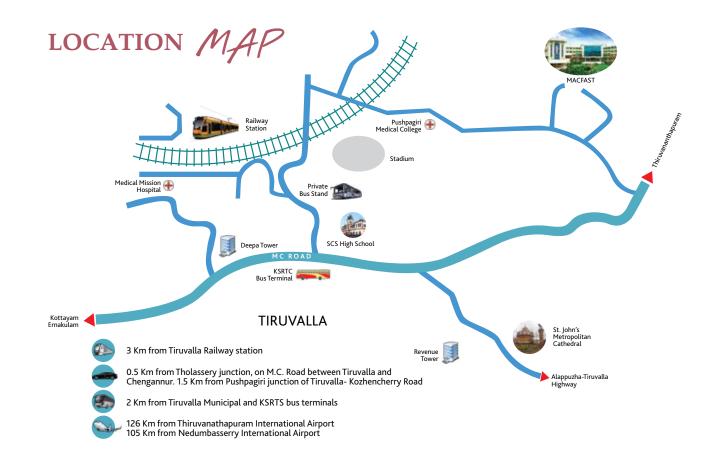
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