



MAHATMA GANDHI INSTITUTE OF TECHNOLOGY

(An Emerging Engineering College of Excellence at All India Level)

ACCREDITED BY NBA AND NAAC BY 'A' GRADE

AFFILIATED TO JNTUH, HYDERABAD



INFORMATION BROCHURE

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING (MMT)

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Mahatma Gandhi Institute of Technology, affiliated to Jawaharlal Nehru Technological University Hyderabad was established by the Chaitanya Bharathi Educational Society (CBES) in 1997. The Department of Metallurgical and Materials Engineering (MMT) was incepted along with other Engineering disciplines with the noble thought of spreading the importance of core engineering. Till date, 18 batches have graduated from the Department. It has been flourishing well with the support of the Management and good will of stake holders. It has brought laurels to the Institute. It has been sphere heading its undergraduate students to uplift their technical, communicational, and organizational abilities and transforming them employment-ready.

ABOUT THE DEPARTMENT

The Department has well qualified, experienced, and dedicated faculty members who pay a special attention in imparting high quality education. They keep monitoring and mentoring students to pave platform for better careers. Apart from this, all the faculty members of the Department engage themselves in taking up innovative funded research project work in their specialized areas. These projects involve cutting edge technologies and exposure to state of the art equipment. This work is being transformed into Technical Publications in National, International Journals and gaining lot of applause. The faculty members are also being invited to deliver talks at National and International Technical symposia, and train the young engineers at some of the public sector agencies. The National Board of Accreditation, New Delhi has accredited the Department thrice during 2009, 2014, and 2018.

THE DETAILS OF THE FACULTY MEMBERS IN BRIEF

FACULTY MEMBER	QUALIFICATION	DESIGNATION	EMAIL ID
Dr. K. Ramanjaneyulu	Ph.D. (JNTU Hyderabad)	Associate Professor and Head of the Department	raman@mgit.ac.in
Mr. P. K. Subramanian	M. Tech.(IIT Kanpur)	Associate Professor	pksmanian@mgit.ac.in
Mr.GVR Murthy	M. Tech. (IIT Kanpur)	Associate Professor	gvr@mgit.ac.in
Mr. R.V.S.M. Rama Krishna	M.Tech (University of Hyderabad)	Assistant Professor	ramakrishnar@mgit.ac.in
Ms. J. Jhansi Bai	M. Tech. (IIT Rorkee)	Assistant Professor	jhansijadav@mgit.ac.in
Dr. M. Vijaya Lakshmi	Ph.D. (University of Hyderabad)	Assistant Professor	mvijaya@mgit.ac.in
Mr. Bhomik Ketari Deogade	M. Tech. (IIT Roorkee)	Assistant Professor	bhomik@mgit.ac.in
Mr. P.V.S. Lakshmi Narayana	M. Tech. (University of Hyderabad)	Assistant Professor	laxminarayanamme@mgit.ac.in
Dr. S. Shanthi	Ph. D. (JNTU Hyderabad)	Assistant Professor	santhi@mgit.ac.in
Mr. A Dinesh	M. Tech. (NIT Trichy)	Assistant Professor	dinesh@mgit.ac.in

INFRASTRUCTURAL FACILITIES AVAILABLE IN THE DEPARTMENT

The Department has laboratories that cover the aspects of Physical Metallurgy, Extraction Metallurgy, Process Metallurgy, Computational Metallurgy, and Corrosion Metallurgy. All the laboratories of the Department are well-equipped providing the much required practical training to the undergraduate students. Some of the equipment in the laboratories enable the students to take up in house projects. An exclusive Department library consisting of hand books, journals, and previous project reports helps the students understand the theoretical concepts in detail.

S.No.	Name Of The Laboratory
1	Electro Metallurgy & Corrosion
2	Foundry Technology
3	Fuels, Furnaces And Refractories
4	Heat Treatment Technology
5	Mechanical Metallurgy
6	Mechanical Working Of Metals
7	Metallurgical Computations
8	Mineral Processing
9	Physical Metallurgy
10	Principles Of Extractive Metallurgy

STUDENT CENTERED ACTIVITIES

Time and again, the Department keeps track of the academic performance of the students. Class review committee meetings are periodically conducted. All the faculty members of the Department keep interacting with the students in mentoring sessions to counsel them for their career betterment. Once in a semester, the students of the Department are escorted to the renowned metallurgical industries or Research Laboratories to impart exposure to various metallurgical processes being carried out in those firms. The Department encourages students to undertake Internship and Industrial Training in the organization of their choice. The final year students of the Department are deputed to reputed organizations in and around Hyderabad to carry out their Mini Project work and Final Year Project work. In this tenure, they are trained to execute high standard projects to bridge the technological gaps and bring out appropriate solution for the real time metallurgical problems.

All the faculty members of the Department guide and encourage the students to participate and present Technical Papers at various National Level and International Level Technical Conferences/Symposia in order to strengthen their communicational and presentational abilities.

The Department organizes National Level and International Level Technical symposia in association with some of the Government sector organizations and professional societies to benefit the students in exposing to the most happening technologies.

Renowned organizations like Sandvik Asia, Jindal Steel Works (JSW), Aqua Engineering, Atibir Industries, Shell Cast, BMM Ispah, and Karthik Group of Companies recruit the final year students through On-Campus Placements.

STUDENTS' EXCELLENCE

Students of the Department are being admitted into Masters and Direct Ph. D. Programs at the most sought after Universities in India and abroad with complete financial assistance after their successful graduation.

Every Academic Year, the best academic performer of the Department is being awarded Gold Medal by JNTU Hyderabad. This Department has been the overall best academic performing Department of the Institute since the last 5 years

The five students of the Department with best Academic performance in III and IV years are being awarded the Ministry of Steel scholarship, Government of India.

The final year project work of some of meritorious students is being financially supported by reputed National Level Engineering and Science Academia.

The most innovative projects carried out at reputed organizations are being awarded the Best Undergraduate Projects by the Indian National Academy of Engineering (INAE)

Year after year, the performance of the students of the Department has been improving in the National level Competitive examinations like GATE, BARC, NALCO, SAIL etc.

ORGANIZATIONAL EXCELLENCE OF THE DEPARTMENT

- The Department has organized 9 National Level Technical Conventions/Short Courses, 2 International Level Conferences/Schools, 9 National Level Students' Symposia (METALLON), and good number of Invited Talks/Guest Lectures till date. Eminent scientists and Technologists from esteemed Organizations and Research laboratories, who have done pioneering contributions to the field of Metallurgical Engineering and Materials Technology, have been invited to deliver their significant work. These Events were well supported by various Government Organizations, Industries, Research and Development Laboratories across the world. The Events Include:
- National Convention on "Frontiers of Metallurgy and Materials Technology: Invited Lectures" during December 26-28, 2003.
- An International Conference, fMMT-09 during 29-31 January 2009. This had been the first-ever International Conference organized by the Institute.
- Indian Institute of Metals Students' Outreach Mission on September 12, 2009.
- An International Winter School (IWS) on "Advances in Aeronautical Materials and Technology" (AAMT-10) during December 15-19, 2010.
- A National Convention on "Analysis and Prevention of Fractures and Failures (APFF-2012)" during Feb 3-4, 2012.
- A Short Course on Powder Metallurgy (PMSC-2012) during December 18-22, 2012 in association with the Powder Metallurgy Association of India, Bombay.
- National Convention on Perspectives in Metallurgical and Materials Engineering (PMME-2013) during December 23-24, 2013.
- Metallurgy for Non metallurgists (MNM-2015) during January 29-31, 2015.
- Advanced Steels for Strategic Applications during December 30-31, 2015.
- National Seminar on Recent Advances in Materials and Manufacturing Technologies (RMMT-2018) on February 19, 2018.
- Apart from these, every year the Department organizes its National Level Students' Technical Event, METALLON, where in the students of the Institute and other Institutes participate in various Technical competitions.

MILESTONES ACHIEVED BY THE DEPARTMENT

- The Department has been accredited by the National Board of Accreditation (NBA), New Delhi in the years 2009, 2014, and 2018
- The Department has the remarkable credit of organizing Two International Level Symposia during 2009 and 2010 successively and successfully
- The Department has entered into a Memorandum of Understanding with the Ministry of Defence, Government of India during 2010. This is the First-ever MoU for the Defence Ministry with a Discipline being offered at self financed Technical Institutions across the country. Apart from this, the Department has been the consultant agency for many Private sector organizations in and around Hyderabad.
- The research work carried out by the faculty members has been awarded and rewarded by the Indian National Academy of Engineering as the best innovative work.
- The Ministry of Steel, Government of India has chosen the Department at MGIT to institute the Scheme of Steel Chair Professor and Scholarships to the 5 Best Academic Performers of third and fourth year (worth Rs. 10,000/- per student per month) for 10 years i.e., in the tenure 2013-2023. Dr. K Bhanu Sankara Rao, a renowned Researcher, former Deputy Director, Indira Gandhi Center for Atomic Research (IGCAR), Kalpakkam and former Dean, School of Engineering Sciences and Technology, University of Hyderabad has served the Department as Chair Professor in the tenure 2013-2018

ALUMNI

It is an undeniable fact that the Alumni of the Department are doing exceptionally well in and outside India. They are positioned as Scientists, Engineers and Technologists in Nation serving organizations viz., DMRL, ARCI, BARC, NFC, SAIL, HINDALCO, MIDHANI, ISRO, NMDC, SANDVIK Asia, ESSAR Steels, L&T, Zindal, Shell, Vedanta, Atlas Copco, and many other. Some Alumni are into Teaching Profession at IITs, NITs and National Universities in India and International Universities abroad. The immediate graduates of the Department are pursuing Higher Education in India (IISc, IITs, NITs) and Reputed Universities abroad like Oxford University, UK, University of Florida, USA, New Jersey Institute of Technology, USA, University of Missouri Rolla, USA, Keil University, Germany, Katholieke University, Belgium, and other Universities in Australia, Sweedon and Newzealand. The contribution of the Alumni to the Department has been remarkable. They have instituted Gold Medals for the Best Academic performers of the Department in I, II and III years. They have been supporting the events being organized by the Department. The undergraduate students of the Department take guidance from the Alumni in moulding their careers.

Some of the Alumni have been delivering series of talks on Advanced Material Characterization techniques for the benefit of undergraduate students of the Department who would undertake Summer Internships, Mini Project and Major Project works at esteemed organizations. The Alumni turned entrepreneurs have been absorbing some of the graduates of the Department in their organizations. The alumni keep interacting with the undergraduates as and when they visit the Department and guide them in paving better plot form for their careers after graduation.



THE MOST DISTINGUISHED ALUMNI OF THE DEPARTMENT

NAME OF THE ALUMNUS	YEAR OF GRADUATION	CURRENT AFFILIATION
V. ANIL	2002	SCIENTIST, ISRO
A. RAVI SANKAR	2002	SCIENTIST, IGCAR, KALPAKAM
DR. C. V. S KIRAN	2003	SCIENTIST, ISRO
DR. K. ANAND KRISHNA	2003	ASST. PROF. DEPT. OF MME, IIT, MADRAS
DR. BHARAT JASTHI	2003	ASST. PROF., DEPT. OF MATERIALS ENGINEERING, SOUTH DAKOTA SCHOOL OF MINES, USA
DR. G. RAGHUVEER	2004	SCIENTIST, GLOBAL R&D, SANDWICK LIMITED
NAVEEN MANHAR	2006	SCIENTIST, ARCI, HYDERABAD
SRIKANTH V	2006	SCIENTIST, DRDL
DR. K P SHASHANKA	2007	RESEARCH ASSOCIATE, DEPT. OF MATERIALS SCIENCE, OXFORD UNIV
DR. M. SAIRAM KRISHNA	2007	ASST. PROF., IIT, HYDERABAD
ANAND VERMA	2008	SCIENTIST, NTPC R&D, DELHI
K. APPALA RAJU	2008	ASST. MANAGER, VIZAG STEEL PLANT
J. SRINATH	2009	SCIENTIST, ISRO
P. S. KANNAKI	2009	PH.D. SCHOLAR, UNIV. OF TUDELFT, GHENT
MR. M. VARUN KUMAR	2009	SR. METALLURGIST, R&D, EPIROC, HYDERABAD
K. UDAY KUMAR	2009	DY. MANAGER, TATA MOTORS., PUNE
SHARAT SUBRAHMANYAM	2009	MD, M/S FUSION HEAT TREATMENTS, HYDERABAD
SRIVATSA KULKARNI	2010	MANAGER, TATA PROJECTS, BANGALORE
A E NAVANITHA PRIYA	2011	DY. MANAGER, MARKETING, JSPL
K. AKHIL	2011	DY. MANAGER, MARKETING, VIZAG STEEL PLANT
NAVEEN KUMAR	2011	MD, CRYSTAL METALLURGICAL SOLUTIONS
G. BHARAT REDDY	2014	SCIENTIST, BARC
V.VIVEK SHARMA	2015	ENGINEER, NMDC STEEL PLANT
M. LAKSHMI SRAVANI	2015	PH.D. SCHOLAR, UNIV. OF KIT , GERMANY
M. RAGHUNATH SHARMA	2016	PH.D SCHOLAR, IIT, MADRAS
L.SURYA	2016	MD, M/SSANO HIGH GRADE SPECTROCAST, HYDERABAD

THE VIEWS OF SOME OF THE DISTINGUISHED ALUMNI OF THE DEPARTMENT:

ANAND D VARMA

YEAR OF GRADUATION: 2008
POST GRADUATION: M. TECH. (IIT BOMBAY – 2010)
CURRENT POSITION: MANAGER AT NETRA - NTPC LTD R&D



The metallurgical profession is extremely diverse, and it offers a wide variety of career opportunities for young people who have an interest in technology, science and engineering. Metallurgical engineers are employed in every industry that produces, buys, sells, refines or manufactures metals / advanced material products. Department of MME at MGIT has provided extensive exposure to industry making it easier to relate classroom study to field applications. Which is where I learned applying mechanical micro structural property correlation- to be used and applied till date.

JONNALAGADDA SRINATH

YEAR OF GRADUATION: 2009
AFTER GRADUATION: M. TECH. IN METALLURGICAL AND MATERIALS
ENGINEERING AT IIT MADRAS
CURRENT POSITION: SCIENTIST/ENGINEER 'SD' IN VIKRAM SARABHAI
SPACE CENTRE, ISRO



Metallurgical Engineering is undoubtedly the mother of all branches of engineering, as without progress in Metals and Materials, there is no advancement in technology. Its importance is such that the history of civilization is defined with the materials that were used during that period. This branch is ever-evolving with new developments every day, which is really exciting. Multi-'phase'ed behavior of metals is very fascinating and will certainly make you fall in love with this Discipline. In addition to imparting strong fundamental knowledge and skills to the students, the Department of MME, MGIT has been Phenomenal in creating excitement and in kindling passion towards Metallurgy. That is the reason why the Department of MME has been remarkable in its achievements and its students have been so successful.

NIKHIL YELLAKARA

YEAR OF GRADUATION: 2010
AFTER GRADUATION: PHD IN MATERIALS SCIENCE ENGINEERING FROM
UNIVERSITY OF NORTH TEXAS, USA
CURRENT POSITION: PRODUCT DEVELOPMENT ENGINEER AT
STEEL DYNAMICS INC., USA



Metallurgical industry being one of the oldest, yet remains one of the biggest and most important for the growth of the world's economy. At MGIT, I enjoyed learning Physical Metallurgy & Mechanical Behavior of Metals. The phase transitions in the Iron-Carbon phase diagram and the Stress-Strain curves I learnt in B.Tech, have now become my livelihood. The department has been successfully hosting national level technical conferences where the students get the opportunity of interacting with a number of leaders in the industry. Visiting various steel plants organized by the department allows students to learn the dynamics of successfully



KAMARTHI AKHIL

YEAR OF GRADUATION: 2011

AFTER GRADUATION: MANAGEMENT TRAINEE VIZAG STEEL PLANT (RDL)

CURRENT POSITION: DEPUTY MANAGER (MKTG.), VIZAG STEEL PLANT (RDL)

The everyday lives of humans are intertwined with metals and materials. The inventions and innovations in metals and materials have made the human race leap from stone age to present age. Engineers graduated from this underrated discipline lay foundations in areas of Construction, Automobile, aerospace, Defence and Energy/Nuclear to name a few.

The department of MME gave us valuable insights at the right time by organizing various industrial visits, making us understand how research is done in various labs of international repute, by which the student is informed about the latest trends in core field. Thus, a student can make an informed decision to choose a path of his interest.



N. KRISHNA KANTH

YEAR OF GRADUATION: 2012

AFTER GRADUATION: M. SC. IN ADVANCED MATERIALS - NANOMATERIALS,

UNIVERSITY OF ULM, GERMANY

CURRENT POSITION: PHD RESEARCH GRADUATE - AFFILIATED TO
TU DARMSTADT, GERMANY

WORKING AT ELECTRON MICROSCOPY AND SPECTROSCOPY LABORATORY,
INSTITUTE OF NANOTECHNOLOGY, KARLSRUHE INSTITUTE OF TECHNOLOGY, GERMANY

The metallurgical discipline is quite diverse with variety of career opportunities who is interested technology, science and engineering. Metallurgical engineers concur manufacturers to scientists, industries to research institutes, and their role is highly valued with exciting opportunities who excel. Aside from the job scope itself, one factor that significantly influences me how I was exposed to distinct research in the field of Materials Science. Perhaps a positive environment, wide exposure to the community around the world and of-course a close relationship with the teachers at the institute and Professors from IIT's and scientists from Defense labs made career blossom. A fine department that brightens one's career.



Y S SRINIVAS CHAKRAPANI

YEAR OF GRADUATION: 2017

AFTER GRADUATION: MS IN IIT-M

CURRENT POSITION: MS RESEARCH SCHOLAR IN IIT-M

The Department of Metallurgical and Materials Engineering of MGIT has given me strong basics in the subject which made things easy in interviews and competitive examinations. The willingness of the faculty members to teach and their approach is commendable. The faculty was always available for any kind of technical interactions without a time constraint. They gave us the liberty of asking them any technical thing which facilitated our technical skills greatly. The discipline of Metallurgical Engineering is still a treasure which is unexplored by many people. Metallurgical Engineering is a broad discipline and has many sub-areas covering the basics of Mathematics, Physics and Chemistry. By this, one can always choose whatever they prefer in the future as their career.