

Dr. MAHALINGAM

COLLEGE OF ENGINEERING AND TECHNOLOGY

Affiliated to Anna University, Chennai. Approved by AICTE. Accredited by NBA and NAAC with Grade A++ Udumalai Road, Pollachi - 642 003.

DEPARTMENT OF AUTOMOBILE ENGINEERING

NEWSLETTER

VOLUME - 13 ISSUE- 1 2023-24

Institution Vision & Mission

We develop a globally competitive workforce and entrepreneurs.

Mission:

Dr. Mahalingam College of Engineering and Technology, Pollachi endeavors to impart high quality, competency based technical education in Engineering and Technology to the younger generation with the required skills and abilities to face the challenging needs of the industry around the globe. This institution is also striving hard to attain a unique status in the international level by means of infrastructure, state-of-the-art computer facilities and techniques

Department Vision & Mission

DV:To offer cutting-edge technology in the broad area of automobile engineering and develop globally competitive engineers

DM1:To develop automobile engineering graduates for a successful career in global automotive industry through effective teaching-learning and training.

DM2:To develop the capability of graduates for creating innovative products / systems to enhance the quality of life.

DM3:To inculcate in them the ability to solve societal problems through engineering and professional skills.



HoD's Message

Greetings to faculties and Student friends in our journey towards perfection I sincerely hope that our department would provide a platform for the young minds to unleash their innovative ideas to develop the technical and professional skills of our student friends. As the change seems to be the buzz word of the modern are let us change our thoughts to empower and transform ourselves for a bright future.

PEOs, POs & PSOs

PEO1: Technical Expertise: Actively apply technical and professional skills in engineering practices to face industrial challenges around the globe

PEO2: Higher studies and Research: Own their professional and personal development by continuous learning to create new knowledge

PEO3: Ethical Knowledge: Conduct themselves in a responsible, professional and ethical manner supporting sustainable economic development, which enhances the quality of life.

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2.Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3.Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4.Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6.The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PSO1. Analyze the systems behavior and optimize for the results using modelling, simulation and experiments.

PSO2. Design automotive components with due considerations of environment and sustainability.

New Faculty Members



Dr.K.Sakthi Vadivel has joined the institute on 03-07-2023 as Assistant Professor(SG) in Automobile Engineering Department with Mechanical background. He completed B.E (Mechanical Engineering) in Dr.Mahalingam College of Engineering and Technology and M.E (CAD/CAM) in Kongu College of Engineering. He has 13 years of teaching experience.



Mr.M.Ponmurugan has joined the institute on 01-06-2023 as Assistant Professor(SS) in Automobile Engineering Department with Thermal background. He completed B.E (Mechanical Engineering) in Thanthai Periyar Government Institute of Technology and M.E (Thermal Engineering) in Government College of Technology. He has 15 years of teaching experience.



Mr.N.Dhamodharan has joined the institute on 01-07-2023 as Assistant Professor in Automobile Engineering Department with Mechatronics background. He completed B.E(Mechatronics Engineering) in Maharaja Engineering College and M.E (CAD/CAM) in Kumaraguru College of Technology. He has 9 years of teaching experience.



Mr.V.D.Tamilarasan has joined the institute on 14-06-2023 as Assistant Professor in Automobile Engineering Department with Thermal background. He completed B.E (Mechanical Engineering) in Nandha Engineering College and M.E (Heat Power Engineering) in Coimbatore Institute of Technology. He has 6 years of teaching experience.



Mr.Raguprasath Has Joined in the institute on 01-08-2023 as Lab Assistant in Automobile Engineering Department with Mechanical background. He completed DME (Mechanical Sandwich) in Nachimuthu Polytechnic College.



Mr.R.Vishnuchandar Has Joined in the institute on 04-03-2019 Transferred on as Lab Assistant in Automobile Engineering Department with Automobile background. He completed DAE (Automobile) in Nachimuthu Polytechnic College

Journal Publication

S. No	Name of the Faculty	Title of the Paper	Name of the Journal	Month & Year of Publication
1	Dr.D.Shanmugam	Effect of alkali treatment on properties of Palmyra palm tree primary flower leaf stalk fiber–reinforced polymer composites"	Biomass Conversion and Biorefinery	19-08-2023
2	Dr.M.Selvakumar	Studies on the thermal characteristics of nano-enhanced paraffin wax phase	Journal of Energy Storage	01-10-2023
3	Dr.M.Selvakumar	Printing High-Strength High-Elongation Al4043 Alloy Using UNS A94043 Welding Wires through Wire Arc Additive Manufacturing	Journal of Materials Engineering and Performance	31-08-2023

Patent Publication

S.No	Name of the Faculty	Title of the Patent	Application No.	Date	Published/ Granted
1	Dr.M.Selvakumar	An Arrangement for detecting Surface defects Engine position and method Thereof	202341042928 A	27-06-2023	Published
2	Rajeshkumar R B Mr. Dhamodharan N	A control system using Iot for electric vehicles management	202341059798 A	06-10-2023	Published
3	Dr. K Sakthi Vadivel	Internal combustion engine using alternative fuel injection	202341059794 A	06-10-2023	Published
4	Dr. S.K.Ashok	Household grinding machine	385639-001	30-08-2023	Granted
5	Mr.R.Vishnurameshkumar	Natural fibers Composites for construction and automotive industries	202341057341 A	08-09-2023	Published
6	Mr.S.Mahalingam	A system for providing Security and Privacy in 5G Wireless Networks and detecting Threats providing Countermeasures, and Cryptographic Protocols	202341057342 A	08-09-2023	Published

Conference Publication

S.No	Name of the Faculty	Title of the Paper	Name of the Conference	Organizer & Venue	Month & Year of Publication
1	Dr.M.Selvakumar	Cell Viability and Bioactive Coating on Additive Manufactured Polycaprolactone Substrate for Osteointegration Applications	National Conference on Advanced Biocompatible Materials and Devices / Systems for Biomedical Applications	Sri Ramakrishna Engineering College	10-08-2023 to 11-08-2023
2.	Dr.M.Selvakumar	Tribological Investigations of ZnO-TiB2 in Titanium Hybrid Composites for Biomedical Applications	National Conference on Advanced Biocompatible Materials and Devices / Systems for Biomedical Applications	Sri Ramakrishna Engineering College	10-08-2023 to 11-08-2023
3	Dr.K.Sakthivadivel	Mechanical Analysis of AL6061 composite with Fly Ash and graphite reinforcement	Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility	SRM Institute of Science and Technology	27/10/2023
4	Mr.R.Vishnuramesh kumar	Design and thermal analysis of Battery thermal management system for EV	Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility	SRM Institute of Science and Technology	27/10/2023



MOU Signing Ceremony & Vehicle Donation by Renault Nissan Technology & Business Centre, India on 19-12-2023

Best practices followed in department

- Immersion training for faculty in industries
- 2. Industry driven curriculum to meet the industry needs
- 3. Training students for technical skills with industry expertise
- NPTEL courses with faculty mentors to encourage students and support for the process
- Students encouraged to participate in vehicle building process. SAE BAJA, E BAJA
- 6. Orienting students for placement preparedness from second year onwards
- Placement and training planned and scheduled to meet requirements.
- 8. IAP for students
- Special training sessions for weak students during evening hours along with peer tutoring
- Product based laboratory exercises.
- Value added courses on modelling and embedded programing
- 12. Daily update of activities to parents through social media
- Placement through Alumni







MCET-BOSCH JOINT CERTIFICATION CENTRE
EXTRA CREDIT COURSE
AUTOMOTIVE FUEL INJECTION PUMPS

Faculty Participation in FDP, Training, Workshop and Seminars

Name of the Faculty	Event Type	Title of the event	Date	Venue
S.Mahalingam	STTP	Recent Advancements in VLSI Modelling and IC Design	24/07/2023 to 30/07/2023	SRM Institute of Science and Technology, Trichy
R.B.Rajeshkumar	STTP	Recent Advancements in VLSI Modelling and IC Design	24/07/2023 to 30/07/2023	SRM Institute of Science and Technology, Trichy
N.Dhamodharan	Faculty Skill up series II	Python programming for begineers	24/07/2023 to 28/07/2023	Dr.MCET
R.Vishnurameshkumar	Faculty Skill up series II	Python programming for begineers	24-07-23 to 28.07.23	Dr.MCET
N.Dhamodharan	FDP	Basic life support & first aid	08/10/2023	AICTE, Online
Mr. Dhamodharan N	FDP	" Signals and systems"	13.09.2023 to 17.09.2023	Bharathiyar Institute Of Engineering For Women
Mr. Mahalingam S	FDP	" Signals and systems"	13 .09.2023 - 17.09.2023	Bharathiyar Institute Of Engineering For Women
Rajeshkumar R B	FDP	" Signals and systems"	13 .09.2023 - 17.09.2023	Bharathiyar Institute Of Engineering For Women
M.Mahendran	FDP	Research Methodology	July - Oct	NPTEL
Dr.S.K.Ashok	FDP	Patent Search For Engineers And Lawyers	July - Oct	NPTEL

Mr.N.Dhamodharan	FDP	The Joy of Computing Using Python	12 Weeks	NPTEL
Dr.M.Selvakumar	FDP	Project Management	8 Weeks	NPTEL
Dr.K.S.Ashok	FDP	Patent search for Engineers and lowers	8 Weeks	NPTEL
Mr.R.Vishnurameshkumar	FDP	Laser Based Manufacturing	8 Weeks	NPTEL
Mr.S.Raguprasath	Training	In plan training in ABT Maruti	6 days(18-12-23 to 23-12-23)	ABT

Faculty Completed Online Courses

Name of The Faculty	Title of ONLINE Course	Platform
N.Dhamodharan	Introduction to Python	Sololearn
Dr.Calvin S King	Design Thinking Social Innovation and Complex Systems	Linked in Learning
R Vishnurameshkumar	Laser Based Manufacturing	NPTEL
R B Rajeshkumar	Patent Drafting for Beginners	NPTEL
S Mahalingam	Patent Drafting for Beginners	NPTEL
Calvin Sophistus King	Agile Methodologies -Agile Project Management-Agile Foundations	Linked in Learning

Calvin Sophistus King	The Neuroscience of Strategy and Creative Leadership	Linked in Learning
M.Mahendran	Research Methodology	NPTEL
S.K.Ashok	Patent Drafting for Beginners	NPTEL
Mr.N.Dhamodharan	The Joy of Computing Using Python	NPTEL
Dr.M.Selvakumar	Project Management	NPTEL
Dr.D.Shanmugam	Project Management	NPTEL





Elite

Online Certification



(Funded by the MoE, Govt. of India)

This certificate is awarded to VISHNURAMESHKUMAR R

for successfully completing the course



Laser Based Manufacturing

with a consolidated score of

Online Assignments | 18.63/25 | Proctored Exam | 56.5/75

Total number of candidates certified in this course: 626

Aug-Oct 2023 (8 week course)





Roll No: NPTEL23ME108S733804028

To verify the certificate



Faculty NPTEL Certifications







This certificate is awarded to MAHENDRAN M

for successfully completing the course



Research Methodology

with a consolidated score of

Online Assignments | 20.83/25 | Proctored Exam | 66/75

Total number of candidates certified in this course: 3794

Devendra galihal Prof. Devendra Jalihal

Chairperson, Centre for Outreach and Digital Education, IITM

Aug-Oct 2023

(8 week course)



VOLUME 13

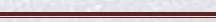
Indian Institute of Technology Madras

No. of credits recommended: 2 or 3

Roll No: NPTEL23GE36S533804264

ISSUE 1

To verify the certificate



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Faculty NPTEL Certifications

Linked in Learning

The Neuroscience of Strategy and Creative Leadership

Course completed by Calvin Sophistus King Sep 17, 2023 at 02:09AM UTC • 8 minutes

Top skills covered

Business Strategy

Leadership



Head of Content Strategy, Learning



Certificate ID: 45fa2a28f60d08e508t3f432ad5944643240f2e54bcf2fee4d6023fc3f86686b

Learning from LinkedIn

COURSE CERTIFICATE

This is to certify that

Dhamodharan N

has successfully completed the course by demonstrating theoretical and practical understanding of

Introduction to Python



Certificate CC-RT93LC31 Resued 10 August, 2023



Yeva Hyusyan Chief Executive Officer

Learning from Sololearn

Project Proposals Submitted

TNSCST - Submission of Project Proposals under Students Project Scheme (2023-2024)

S. No	Title of the Project	Team Members	Faculty Guide	Amount in Rs.
1	Natural rubber eco-friendly composites for sound absorption panels in automobiles	Thanikaivelan A Delbin V D Gokul R	Dr. D. Shanmugam Professor & HOD- Automobile	10,000
2	Development of Composites for Disc Plate for Electric Vehicles	Thanush J.S. Gokul T Sellakumar M	Dr. M.Selvakumar Associate Professor - Automobile	22,000
3.	Investigations on the Corrosion Characteristics of Friction Stir Welded Dissimilar Joints of AA2014-T6 and AZ31B alloys	Saravanarajan R Kavin P Amarnath M	Dr. S.K.Ashok Assistant Professor (SG)- Automobile	8,000
4.	Innovative Green Composite Materials for Sustainable Building Coverings: Investigation and Fabrication	Vijai Anath E Kawin M. M Dinesh Kumar M	Dr. K. Sakthi Vadivel Assistant Professor (SG)- Automobile	11,000
5.	Smart indoor plant environment control system	Thanush J.S. Gokul T Sellakumar M Gokul R	Ponmurugan M Assistant Professor (SS)- Automobile	10,000
6.	Numerical Investigation of Battery thermal management	Sivakumaran G Karthi N Muguntha JP	R. Vishnurameshkumar Assistant Professor - Automobile	21,899
7.	Small Size Vibration Tester for Electric Vehicle Batteries	Praneshkumar M Guhananthan M Kaviyarasan R	Mahendran M Assistant Professor - Automobile	9300
8.	Design of IoT based battery monitoring system	Sriharan R Ananth V Naveenkumar M	S Mahalingam Assistant Professor - Automobile	12000

9.	Arduino Based MPPT Adopted Solar Powered Electric Vehicle with Automated Braking System	Sivashankar S Madhu Krishna D Sakthi Jana M	R.B.Rajesh kumar Assistant Professor - Automobile	12250
10.	Smart Charging Station Occupancy Detector Using RFID and Ultrasonic Sensor	Sam Ben Lazarus B Jagannathan B Saravanan K	N. Dhamodharan Assistant Professor - Automobile	10482
11.	Experimental Investigation on Performance of Solar Cooker Using Low Density Polyethylene Phase Change Material	Thanikaivelan A Sam Ben Lazarus B	V.D. Tamilarasan Assistant Professor - Automobile	10000

Funding Applied

Faculty Involved	Name of the Funding Agency	Government/Non- Government
Dr. D.Shanmugam	TNSCST	Government
Dr. S.K.Ashok	TNSCST	Government
Dr.M.Selva kumar	TNSCST	Government
N.Dhamodharan	TNSCST	Government

Student's Online Courses

Name of The Student	Title of ONLINE Course	Platform
S.K.Sabareswaran	Introduction to python	Sololearn
Jeffery Rozario J	The Joy of Computing Using Python	NPTEL
K.K.Santhosh	The Joy of Computing Using Python	NPTEL
Kanishraam.A.B	The Joy of Computing Using Python	NPTEL

M.Allwin	The Joy of Computing Using Python	NPTEL
Surya.S.S	The Joy of Computing Using Python	NPTEL
Udhay S	The Joy of Computing Using Python	NPTEL
Gowtham AR	The Joy of Computing Using Python	NPTEL
U.Anandha Kumar	The Joy of Computing Using Python	NPTEL
Mathavaraj	The Joy of Computing Using Python	NPTEL
Pravin M	The Joy of Computing Using Python	NPTEL
Yuvaraj A	Laser Based Manufacturing	NPTEL
Sabareesh Kumar E	Laser Based Manufacturing	NPTEL
Ramanathan K	Laser Based Manufacturing	NPTEL
Rithik A R	Laser Based Manufacturing	NPTEL
Premkumar M	Laser Based Manufacturing	NPTEL
Pravin M	Introduction to Python	Sololearn
Pravin M	Electric Vehicles and Mobility	Coursera

Student's Result

2nd Year 3rd Semester – 62%

3rd Year 5th Semester – 59.42%

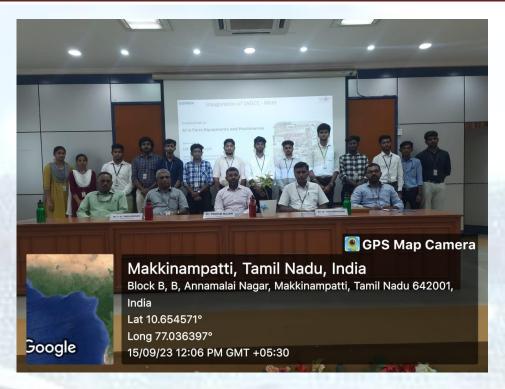
4th Year 7th Semester - 76.6%

SAE Activities

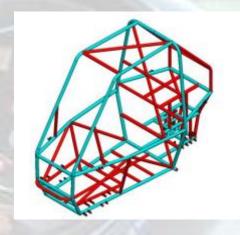
S.No	Title of the Event	Date
1	Inauguration and Induction of Office Bearers	02.09.2022
2	Guest Lecture on Opportunities on Automobile Sales	05.10.2022
3	SAE Self Driving Car Challenge	June 2022



Sponsorship meeting With ROOTS Chairman for SAE BAJA



SAE Inauguration





SAE Baja Roll cage design

SPONCERS:

SACL - 600000

Roots - 200000

Precision Equipment - 200000

Students Participation in Co- Extra Curricular Activity

Name of the students	Event Name	Title	Venue
Danush S	Seminar	One day Seminar on "Recent Trends in Lean Manufacturing"	PSG College of Technology
Chiradeep K	Seminar	One day Seminar on "Recent Trends in Lean Manufacturing"	PSG College of Technology
Pughalarasan Y A	Seminar	One day Seminar on "Recent Trends in Lean Manufacturing"	PSG College of Technology
Jayasudhan D	Seminar	One day Seminar on "Recent Trends in Lean Manufacturing"	PSG College of Technology
Allwin M	Webinar	Webinar on EV thermal management	SSEM
Danush S	Workshop	Drone Technology Workshop	NGP Institute of Technology
Pughalarasan Y A	Workshop	Drone Technology Workshop	NGP Institute of Technology
Devarajan A	Seminar	Chandrayaan Mahotsav	DR MCET
Nithya Roopini S	Seminar	Chandrayaan Mahotsav	DR MCET
Promodh Kanth.R	Seminar	Chandrayaan Mahotsav	DR MCET
Vishnu	Seminar	Chandrayaan Mahotsav	DR MCET
Gowtham	Seminar	Chandrayaan Mahotsav	DR MCET
Saravana Karthick M	Seminar	Chandrayaan Mahotsav	DR MCET
Subhashini R	Seminar	Chandrayaan Mahotsav	DR MCET
Gokul G R	Seminar	Chandrayaan Mahotsav	DR MCET
M.Allwin	Workshop	Hands on Training on MATLAB and SIMULINK	PSG Tech

Mohaneswar	Workshop	Hands on Training on MATLAB and SIMULINK	PSG Tech
Sathyaprakash	Workshop	Hands on Training on MATLAB and SIMULINK	PSG Tech
Anguraja	Workshop	Hands on Training on MATLAB and SIMULINK	PSG Tech
Dinesh	Workshop	Hands on Training on MATLAB and SIMULINK	PSG Tech

Event Organized By Assioation

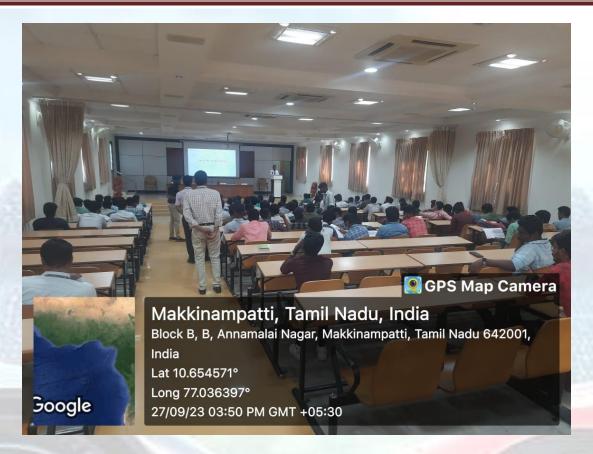
Event Type	Title of the Event	Date
Gest lecture	Hydrogen fuel for automotive applications	21-08-2023
Quiz	Quiz competition on Engineers Day	15-09-2023
Gest lecture	Skill Development Course to Improve Employability & Career Growth Skills in Core.	27-09-2023
Technical Symposium - technofete-23	Product Pitching	06-11-2023
Technical Symposium - technofete-23	Project Presentation	07-11-2023



Guest Lecture on Hydrogen fuels for automotive applicants



Engineer's Day Quiz Competition



Guest Lecture On Skill Development Course to Improve Employability & Career Growth Skills in Core.

Industrial Visit

S.No	Industry Name	Date	Participants
1	OZotech	08-08-2023	R.B.Rajeshkumar
2	Ekki pumps	30-08-2023	IV Year
3	Gishnu Gears	12-09-2023	II Year



II year Students Industrial Visit at Gishnu Transforming Innovation, Coimbatore



IV year students Industrial Visit at Ekki Pumps, Coimbatore

Competency Development (Faculty)

Name of the Faculty	Course Title	Platform
R. Vishnurameshkumar	Laser Based Manufacturing	NPTEL
R B Rajeshkumar	Patent Drafting for Beginners	NPTEL
S Mahalingam	Patent Drafting for Beginners	NPTEL
Dr.Calvin Sophistus King	Agile Methodologies -Agile Project Management-Agile Foundations	Linked in Learning
Dr.Calvin Sophistus King	The Neuroscience of Strategy and Creative Leadership	Linked in Learning
M.Mahendran	Research Methodology	NPTEL
Dr.S.K.Ashok	Patent Drafting for Beginners	NPTEL
Mr.N.Dhamodharan	The Joy of Computing Using Python	NPTEL
Dr.M.Selvakumar	Project Management	NPTEL
Dr.D.Shanmugam	Project Management	NPTEL
N.Dhamodharan	Introduction to Python	Sololearn
Dr.Calvin S king	Design Thinking Social Innovation and Complex Systems	Linked in Learning

No. Of department faculty acted as a resource person:

Within MCET: 3

Outside MCET: 3

Alumni Contact

5	Total no. of students passed out	No. of alumni with contact details available in the department	No. of active Alumni	
	1472	1472	640	



Alumni Interaction 09-12-2023

Editorial Board:

Editor : Mr.N.Dhamodharan Assistant Professor/Auto

Student Coordinator: S Dhanush Narayanan (727621BAU009)

A Akilan (727622BAU019)

