



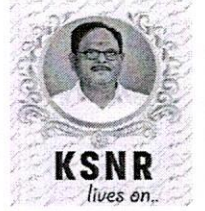
K.S.R.M. COLLEGE OF ENGINEERING

(UGC-AUTONOMOUS)

Kadapa, Andhra Pradesh, India- 516 003

Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu.

An ISO 14001:2004 & 9001: 2015 Certified Institution



Lr./KSRMCE/ CSE/2020-21/

Date: **26.03.2021**

To

The Principal,
K.S.R.M.College of Engineering
Kadapa.

Respected Sir,

//THROUGH PROPER CHANNEL//

Sub:KSRMCE - CSE-Requested to give permission to organize "A One-Day Guest Lecturer on Missile Guidance and Controls" on 01st April,2021- Reg.

It is being brought to your kind notice that,with reference to the cited, Department of CSE is going to conduct "**A One-Day Guest Lecturer on Missile Guidance and Controls**" on **01st April**.

In this regard, I kindly request you to give us permission to conduct the above event.

Thanking you

Yours Faithfully

N.J.PramodDhinakar

Asst.professor

Dept.of CSE

Cc:

To The Directorfor Information

To All Deans /HoD's



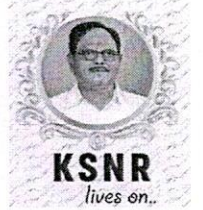
K.S.R.M. COLLEGE OF ENGINEERING

(UGC-AUTONOMOUS)

Kadapa, Andhra Pradesh, India- 516 003

Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu.

An ISO 14001:2004 & 9001: 2015 Certified Institution



Cr./KSRMCE/CSE/2020-21/

Date:26.03.2021.

Circular

This is to inform all the students, that department of Computer Science and Engineering, is organizing "A One-Day Guest Lecture on Missile Guidance and Control" on 01st April, 2021. The resource person for this program is Sri.D.Srinivasulu Reddy (Alumni of KSRMCE), Scientist, DRDL (Defense Research and Development Laboratory), DRDO, Hyderabad.

In this connection we request the students to attend for the above program. For any doubts or clarifications you can contact coordinator Sri.N.J.PramodDhinakar, Assistant Professor, Department of CSE, KSRMCE, Kadapa.

Principal

Cc to:

The Management / Director / Deans / HoDs / IQAC for information



Figure2Mr.D.SrinivasuluReddydeliveringlecture



Figure3Studentsattendedforthelecture

Around55

studentsattendedfortheGuestLecture.Later,Mr.N.J.PramodDhinakarconcludedthe session.

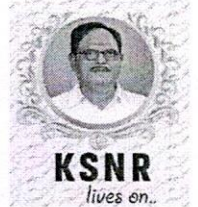


K.S.R.M.COLLEGE OF ENGINEERING (AUTONOMOUS)

Kadapa, Andhra Pradesh, India – 516003

Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu.

An ISO 14001:2004 & 9001:2015 Certified Institution



Department of Computer Science and Engineering

A One - Day Guest
Lecture On

"Missile Guidance and
Control" 01st April, 2021

REPORT

Mr. D. Srinivasulu Reddy (Alumni of KSRMCE), Scientist, DRDL (Defense Research and Development Laboratory), DRDO, Hyderabad delivered a lecture on "Missile Guidance and Control" organized by Department of Computer Science and Engineering.

Targeted Group: IVB. Tech CSE Students

Mr. N. J. Pramod Dhinakar, Assistant Professor, Dept. of CSE introduced the resource person.



K.S.R.M Administration Building, KSRM Hostel Rd, Andhra Pradesh 516003, India

Latitude 14.477886° Longitude 78.765571°

LOCAL 14:00:04 GMT 08:30:04 THURSDAY 04.01.2021 ALTITUDE 50 METER

Figure 1 Mr. N. J. Pramod Dhinakar, Assistant Professor, Dept. of CSE introduced the resource person.

Mr. D. Srinivasulu Reddy explained about Missile block diagram, Missile target engagement scenario, Missile Guidance and its types, Aerodynamic control and Thrust Vector Control and their types also he explained various applications of Artificial Intelligence techniques.

Missile target engagement scenario: After deriving simplified transfer functions for the missile seeker head, missile autopilot, missile dynamics, and target dynamics, a three-dimensional simulation is developed using classical proportional navigation.

Missile Guidance and its types: Guidance systems are divided into different categories according to whether they are designed to attack fixed or moving targets. The weapons can be divided into two broad categories: Go-onto-target (GOT) and go-onto-location-in-space (GOLIS) guidance systems. A GOT missile can target either a moving or fixed target, whereas a GOLIS weapon is limited to a stationary or near-stationary target.

Thrust Vector Control: Thrust vectoring, also known as thrust vector control (TVC), is the ability of an aircraft, rocket, or other vehicle to manipulate the direction of the thrust from its engine(s) or motor(s) to control the attitude or angular velocity of the vehicle.

Aerodynamic control: To control a missile accurately via aerodynamic forces, two general types of control surfaces (i.e., primary and secondary controls) are used. Primary control surfaces include ailerons, elevators, rudders, and canards; secondary control surfaces include tabs, spoilers, and slots.

Applications of Artificial Intelligence: Potential applications within the Army Integrated Air and Missile Defense (IAMD) system include Identification and Classification of tracked objects, Defense Design, and Dynamic Planning and Tasking.