



R K COLLEGE OF ENGINEERING

(Accredited by NAAC with 'A' Grade)

Kethanakonda (V), Ibrahimpatnam (M), Vijayawada, AMARAVATI-521456.

Date:12-10-2023

To,
The Principal
RK College of Engineering.

Through HOD-M.E

Sub: Seeking permission to conduct Two days Seminar on "Applications of fluid Mechanics".

Sir,

I request you to kindly grant permission to conduct a Seminar on 16 & 17th Oct 2023 on "Applications of fluid Mechanics" with regard to the various applications in fluid mechanics. This will be a very informative seminar for many students.

Our students really need to understand the Fluid Mechanics and applications of fluid mechanics.

Thanking you Sir

*Auto principal Sir
M. Chandu alone Reddy*

[Signature]
HOD ME
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Vijayawada, AMARAVATI-521 456.

Yours sincerely

[Signature]

Mr. CH.D.V Nooka Raju
ASSISTANT PROFESSOR
ME Dept.

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Date:12-10-2023

To
Dr. GVNB PRABHAKAR
Professor, Department of Mechanical Engineering,
VKR VNB & AGK College of Engineering,
Gudivada

Sir,


Subject: Request invitation for delivering expert lecture Two-day seminar on
"Applications of fluid mechanics" on dates 16-10-2023 & 17-10-2023– Reg.

Respected Sir,

The department of M.E, RKCE,Kethanakonda (V),Ibrahimpatnam(M), Andhra Pradesh is organizing a two-days seminar on "APPLICATIONS OF FLUID MECHANICS" 16-10-2023 & 17-10-2023. I am happy to invite you as a Resource Person.I request you to accept the invitation and arrange to send the relevant study material so as to include in the course book.

Thanking You,

Yours Sincerely


Mr. V SRINAMA MURTHY
HOD-ME
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Ch. Ch. V. Murthy


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TWO-DAYS SEMINAR ON "APPLICATIONS OF FLUID MECHANICS"

Organized by
Department of Mechanical Engineering
RK College of Engineering, Vijayawada

PROGRAMME FLOW – 16-10-2023.

TIME	SPEAKER	TOPIC TO BE DELIVERED
10:00AMto 10:15AM	Mr. CH.D.V Nooka Raju	Welcomespeech
10:15AMto 10:30AM	Mr. CH.D.V Nooka Raju	Introductionabouttheopro gram
10:30AMto 11:30AM	Dr.G V N B PRABHAKAR Professor, Department of Mechanical Engineering VKR VNB & AGK College of Engineering Gudivada Email: gvnb.prabhakar@gmail.com PhoneNo: 9553124014	Basic Fluid Mechanics Principles
11:30AMto 11 :45	<i>TEA BREAK</i>	
11:45AMto 01:00 PM	Dr.GVNB PRABHAKAR Professor, Department of Mechanical Engineering, VKR VNB &AGK College of Engineering, Gudivada Email: gvnb.prabhakar@gmail.com PhoneNo: 9553124014	Concept of Continuum
01:00 PMto 02:00 PM	<i>LUNCHBREAK</i>	
02:00 PMto 03:30 PM	Dr.GVNB PRABHAKAR Professor, Department of Mechanical Engineering, VKR VNB &AGK College of Engineering, Gudivada Email: gvnb.prabhakar@gmail.com PhoneNo: 9553124014	Fluid Properties

Coordinator: Mr. CH.D.V Nooka Raju

Ch.d.v. Nooka Raju

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TWO-DAYSEMINARON "APPLICATIONS OF FLUID MECHANICS"

Organized by
Department of Mechanical Engineering
R K College of Engineering, Vijayawada

PROGRAMME FLOW – 17-10-2023

TIME	SPEAKER	TOPIC TO BE DELIVERED
10:30AM to 11:30AM	Dr.GVNB PRABHAKAR Professor, Department of Mechanical Engineering, VKR VNB &AGK College of Engineering, Gudivada Email:gvnb.prabhakar@gmail.com PhoneNo: 9553124014	Measurement Techniques In Fluid Flows
11:30AM to 11 : 45 AM	<i>TEA BREAK</i>	
11:45AM to 01:00 PM	Dr.GVNB PRABHAKAR professor , Department of Mechanical Engineering VKR VNB &AGK College of Engineering Gudivada Email:gvnb.prabhakar@gmail.com PhoneNo: 9553124014	Instability, Transition And Turbulence
01:00 PM to 02:00 PM	<i>LUNCH BREAK</i>	
02:00 PM to 03:30 PM	Dr.GVNB PRABHAKAR Professor, Department of Mechanical Engineering VKR VNB &AGK College of Engineering Gudivada Email:gvnb.prabhakar@gmail.com PhoneNo: 9553124014	Applications.
03:30 PM to 04:00 PM	<i>Feedback from the participants and vote of thanks by Mr. chpremkumar</i>	

Coordinators : Mr. CH.D.V Nooka Raju

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Date:17-10-2023

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REPORT ON TWO DAY SEMINAR ON "APPLICATIONS OF FLUID MECHANICS"

Title : "APPLICATIONS OF FLUID MECHANICS"

Expert: Dr.GVNB PRABHAKAR
Professor, Department of Mechanical Engineering,
VKR VNB & AGK College of Engineering,
Gudivada
Email: gvnb.prabhakar@gmail.com
Phone No: 9553124014 Date: 16 & 17th October, 2023

Venue: Room Number 16, Department of Mechanical Engineering, RKCE.

Coordinators: Mr.Ch.D.V Nooka Raju
Mr.Ch. Prem Kumar

Organized by: Mechanical Engineering


Total Participants attended: 110

Details of Participants: Students of II, III and IV Year 1st semester.

Students of II, III and IV Year 1st semester have attended the seminar on "APPLICATIONS OF FLUID MECHANICS" with full enthusiasm. Dr. G V N B PRABHAKAR has elaborately explained about the Applications of Fluid Mechanics. Also, he explained about the various Fluid properties. This seminar was very useful as well as educative for the participants.


Coordinators

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Student Attendance for Seminar on "APPLICATIONS OF FLUID MECHANICS"

SL. NO	ROLL NUMBER	STUDENT NAME	Attendance	
			DAY-1	DAY-2
1	22MC1A0301	KUMMARI MAHIMAKAR	P	P
2	22MC1A0302	PUSAM SIVARAJ	P	P
3	23MC5A0301	BALLENI KIRAN KUMAR	P	P
4	23MC5A0302	CHATRAGADDA BHAVANI	P	P
5	23MC5A0303	CHITEMPALLI YOGI MADHAVAN	P	P
6	23MC5A0304	DAMODAR K N	P	P
7	23MC5A0305	GAJULA RAMA VENKATA SUBHASH	P	P
8	23MC5A0306	GASYA SAI KRISHNA	P	P
9	23MC5A0307	LANKA PAVAN KUMAR	P	P
10	23MC5A0308	PATIL NAVEEN KUMAR	P	P
11	23MC5A0309	PEKETI VENKATA SATYA SURYA SAI RAM	P	P
12	23MC5A0310	RAMISETTY SAI KRISHNA	P	P
13	23MC5A0311	RAYAPUDI DURGA PRASAD	P	P
14	23MC5A0312	TENTI SAI LOKESH	P	P
15	23MC5A0313	TUMMA KALYAN RAM	P	P
16	23MC5A0314	VEERAMACHANENI TARUN CHOWDARY	P	P
17	23MC5A0315	BHIMAVARAM SIVA KARTHIK	P	P
18	23MC5A0316	SHAIK SHAM SHEER ALI	P	P
19	23MC5A0317	MOHAMMED IRSHAD	P	P
20	23MC5A0318	PATHAN KHADAR BABU	P	P
21	21MC1A0301	GURRAPPA GARU GANDHI	P	P
22	21MC1A0302	NAGARAKANTI BALAJI	P	P
23	21MC1A0303	POLUBOINA RAMESH	P	P
24	21MC1A0304	PUPPALA PURNA NAGA SIVA KARTHIK	P	P
25	22MC5A0301	ADDEPALLI KALYAN	P	P
26	22MC5A0303	BEZAWADA SRINIVAS	P	P
27	22MC5A0305	DARLA VENNELA VARSHA	P	P
28	22MC5A0306	DRONADULA MANIKANTA KALYAN	P	P
29	22MC5A0307	GUJJULA PRAVEEN	P	P
30	22MC5A0308	JAMPANA SRI HARI VARMA	P	P
31	22MC5A0310	KANUMURI GIRIDHAR GOPAL	P	P
32	22MC5A0313	MADIREDDY HARISH	P	P
33	22MC5A0314	PAMIDIMUKKALA CHARAN RAVI KISHOR	P	P
34	22MC5A0315	PARNA ANIL SIVA SAI KISHORE	P	P
35	22MC5A0316	PATHAN BAJI BABA	P	P
36	22MC5A0317	PENUMUDI SHANMUKHA NAVEEN	P	P
37	22MC5A0318	PERAVALI SUMANTH KUMAR	P	P

Chandrababu
Coordinator-IQAC

**Coordinator-IQAC
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38	22MC5A0319	RAGAM SRINIVAS		
39	22MC5A0320	RAMALA ADONI RAMJEDSON		
40	22MC5A0321	RAYI HARI SAI RAM		
41	22MC5A0322	SAMANASI SATISH KUMAR		
42	22MC5A0323	SHAIK ABDULSAIDA		
43	22MC5A0324	SHAIK BASHA		
44	22MC5A0325	SOMARAJU UMA KRISHNA		
45	22MC5A0326	TIKATI GANGADHAR RAO		
46	22MC5A0327	VANKAYALAPATI HARSHAVARDHAN		
47	22MC5A0330	YADARI RADHA GOVIND		
48	22MC5A0331	YADLA CHAKRADHAR		
49	22MC5A0333	BOKINALA JASWANTH		
50	22MC5A0334	MYLABATHUKA YANI REACHEL		
51	20MC1A0301	BUDDAPPAGARI SREENIVAS		
52	20MC1A0302	DERANGULA GANESH KUMAR		
53	20MC1A0303	KUNIBANDA NARESH		
54	20MC1A0304	M SUNIL KUMAR		
55	20MC1A0305	NEELAM VENKATESWARLU		
56	20MC1A0306	PEESA LAKSHMANA RAO		
57	20MC1A0308	TIRUVEEDHULA AKHIL SAI		
58	21MC5A0301	AARIMALLA MANI KUMAR		
59	21MC5A0302	ABDUL IMRAN		
60	21MC5A0303	ADIVISHNU NAGA VENKATA SAI KRISHNA		
61	21MC5A0304	ATHUKURI RAJESH KUMAR		
62	21MC5A0305	CHUNDURI AJAY		
63	21MC5A0307	GAMPALA GANGADHAR		
64	21MC5A0308	GANDIKOTA RAJKUMAR		
65	21MC5A0309	GAVIRISETTI ABHISHEK		
66	21MC5A0310	KAKUMANI ABHIRAM		
67	21MC5A0311	YERUVA VENKATAPAVANKUMARREDDY		
68	21MC5A0312	KATEPOGU DAMODAR		
69	21MC5A0313	KATTA NAGA KOTI		
70	21MC5A0314	KOMARAVALLI CHANDU		
71	21MC5A0315	KUNA SAI VAMSI		
72	21MC5A0316	KURAGANTI JOSHI		
73	21MC5A0318	MADANA RAMAKRISHNA		
74	21MC5A0321	MAMIDI MAHESHKUMAR		
75	21MC5A0322	MARIDU RAVI TEJA		
76	21MC5A0323	NAGAM ACHYUTH		
77	21MC5A0325	PATAN SULEMAN KHAN		
78	21MC5A0326	PILLI HEMANTH		
79	21MC5A0327	POTHURI NAGAVENDRA BABU		
80	21MC5A0329	SEELAM NAVEEN		

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81	21MC5A0330	SHAIK GOUSE RABBANI	P	P
82	21MC5A0332	SONTI VIJAY KUMAR	P	P
83	21MC5A0333	VEERANKI BHARATH KUMAR	P	P
84	21MC5A0335	VEMPAADA GOVIND	P	P
85	21MC5A0336	YARRA KUSHAL KUMAR	P	P
86	21MC5A0337	TATAKULA NAGA DEEPAK KRISHNA	P	P
87	20MC5A0310	PUSUNURU YUVARAJ	P	P
88	22MC1A0101	PULLAGANTI HARIKRISHNA	P	P
89	23MC5A0101	BATTHULA HANU	P	A
90	23MC5A0102	VINNAKOTA NAGA DURGA PRASAD	P	P
91	23MC5A0103	GONGI PRASANTHI	P	P
92	23MC5A0104	GUDIDA SINDHU	P	P
93	23MC5A0105	KAVURU VIJAY BABU	P	P
94	23MC5A0106	KOTHAMASU SAI MANIKANTA	P	P
95	23MC5A0107	MAJJI VAISHNAVI	P	P
96	23MC5A0108	MEENUGA OMPRAKASH	P	P
97	23MC5A0109	UPPUTURI JAYA SWATHI	P	P
98	23MC5A0110	VEGI JANARDHANA RAO	P	P
99	23MC5A0111	VEGI RAGHURAM	P	P
100	20MC1A0101	PULLAGANTI HARIKRISHNA	P	P
101	20MC1A0102	BOMMIDI SIVA KUMAR	P	P
102	20MC1A0103	GANDHAM JASWANTH	P	P
103	20MC1A0104	KALIVELA THIMOTHI	P	P
104	20MC1A0105	NAIDU SAMYELU RAJU	P	P
105	20MC1A0106	PRAGADA MOHAN KRISHNA	P	P
106	20MC1A0107	PEGADA MANI KUMAR	P	P
107	21MC5A0103	TIRUMALASETTI VENKATA AKARSH	P	P
108	21MC5A0105	KAKKIRALA NANGALYA PRAVALLIKA	P	P
109	21MC5A0106	MACHAKANTI RAVI KUMAR	P	P
110	21MC5A0107	PAMMI VAHITHA	P	P

Ch. V. N. N.
Coordinators

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Resource Person Profile



Presently working as Professor of Mechanical Engineering Department at VKR VNB & AGK from March 2014 (Responsibilities: Teaching UG and PG Students of Mechanical Engineering and performing the works assigned Principal). Having 17 years of Teaching and 2 years of Research consultancy in Mechanical Engineering.

Fluid Mechanics :

The primary objective of this seminar on Fluid Mechanics is to provide participants with a comprehensive understanding of the fundamental principles and concepts governing fluid behavior. The seminar aims to explore key topics such as fluid properties, fluid statics, dynamics, and the governing equations of motion, including the Navier-Stokes equations. Attendees will gain insights into real-world applications of fluid mechanics in engineering, environmental science, and industrial processes

Why Fluid Mechanics ?

Fluid mechanics is a fundamental branch of physics and engineering that deals with the behavior of fluids (liquids and gases) in motion and at rest. It plays a crucial role in understanding and solving a wide range of practical problems across various fields.

Ch. d. V. Nooku

Haril. K
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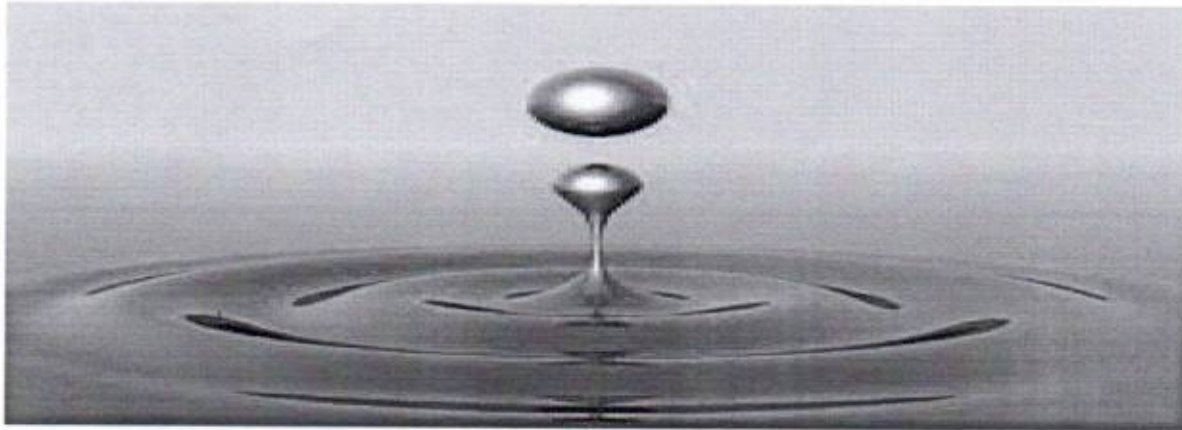


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REPORT ON "APPLICATIONS OF FLUID MECHANICS"



About Applications of Fluid Mechanics :

Fluid mechanics is the branch of physics that deals with the study of fluids (liquids and gases) and the forces acting upon them. It involves understanding the behavior of fluids in both static (at rest) and dynamic (in motion) conditions, and it is fundamental to many engineering, scientific, and industrial applications. Fluid mechanics combines principles from physics and mathematics to solve problems involving the flow of fluids, their interaction with solid boundaries, and the forces that arise within fluids.

Fluid mechanics is an essential field with a broad range of applications in various industries and natural systems. The principles of fluid dynamics and statics are used to design and optimize systems that involve the flow of liquids and gases.

Here are some key areas where fluid mechanics plays a crucial role:

1. Aerospace Engineering

- **Aircraft Design:** Fluid mechanics is fundamental in the design of airplanes, helicopters, and drones. Engineers use fluid dynamics to reduce drag, optimize lift, and improve fuel efficiency by analyzing airflow over wings, fuselages, and other components.

Chob Nanku
Harsh

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- **Rocket Propulsion:** Fluid mechanics is used to understand the behavior of high-pressure fluids in rocket engines, ensuring proper fuel combustion and maximizing thrust for space exploration.
- **Aerodynamics:** Wind tunnels and computational fluid dynamics (CFD) simulations are employed to study and improve the aerodynamic properties of various aircraft and spacecraft.

2. Civil Engineering

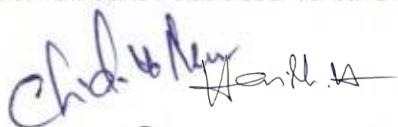
- **Water Distribution Systems:** Fluid mechanics is crucial for the design of efficient water supply systems, including pipelines, pumps, and treatment plants. It helps engineers ensure that water flows smoothly, minimizing energy consumption and optimizing pressure in pipes.
- **Flood Management and Dams:** Understanding the flow of water is vital for designing flood control systems, dams, levees, and stormwater drainage systems. Engineers apply fluid mechanics principles to predict water behavior during floods and to control water levels safely.
- **Hydraulic Structures:** The design of bridges, tunnels, and canals relies on fluid mechanics to account for water flow and the effects of fluid pressure on structures.

3. Mechanical Engineering

- **Pumps and Turbines:** Fluid mechanics is used in the design and operation of pumps and turbines, which are central to many industrial processes, such as generating electricity and moving fluids in oil refineries, water treatment, and chemical plants.
- **HVAC Systems:** In heating, ventilation, and air conditioning systems, fluid mechanics principles are used to design efficient airflow and temperature control systems in buildings and industrial plants.
- **Automotive Engineering:** Fluid dynamics is applied in the design of vehicles to improve fuel efficiency by reducing aerodynamic drag and optimizing the airflow through engines and cooling systems.

4. Environmental Engineering

- **Pollution Control:** Fluid mechanics helps in the design of systems that treat wastewater and manage emissions from factories, ensuring that pollutants are removed or reduced to safe levels before being released into the environment.



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- **Water and Wastewater Treatment:** The treatment processes rely on fluid flow principles for efficient mixing, filtration, and sedimentation in water treatment plants, ensuring the delivery of clean water to communities.
- **Climate and Oceanography:** Fluid mechanics plays a significant role in modeling ocean currents, atmospheric circulation, and the distribution of pollutants. It is also used to study weather patterns and predict phenomena like hurricanes and El Niño.



5. Energy Production

- **Hydropower:** Fluid mechanics is essential for designing hydropower plants that convert the kinetic energy of moving water into electricity. Understanding water flow through turbines is key to optimizing energy production.
- **Wind and Solar Energy:** Wind turbines and solar thermal systems utilize fluid mechanics to optimize airflow and heat transfer, improving the efficiency of renewable energy sources.
- **Petroleum Engineering:** In oil and gas extraction, fluid mechanics is used to model the flow of oil, gas, and water within reservoirs, pipelines, and processing systems, ensuring efficient extraction and transportation of fossil fuels.

Ch. Chandra Kumar
Harish A

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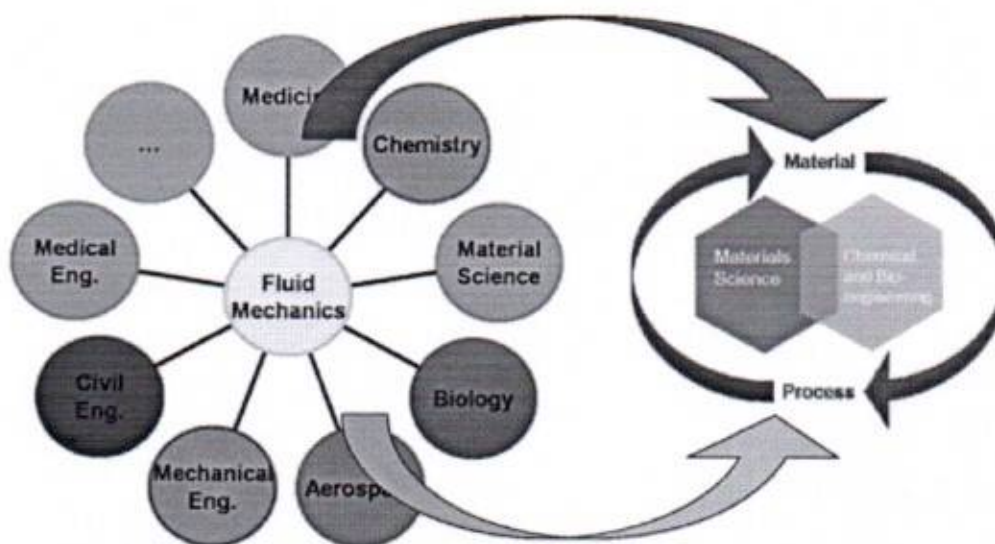
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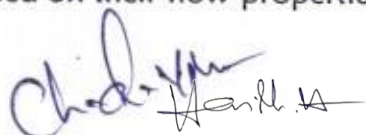
6. Medical and Biological Applications

- **Blood Flow in the Circulatory System:** Fluid mechanics is used to model and study the flow of blood through arteries and veins. This understanding helps in diagnosing cardiovascular diseases, designing artificial heart valves, and planning surgeries like stent placements.
- **Respiratory Flow:** The behavior of air as it moves through the respiratory system is studied using fluid mechanics. This knowledge aids in the development of devices like ventilators and inhalers, and in understanding respiratory diseases like asthma and emphysema.
- **Bioreactors and Drug Delivery:** Fluid mechanics is used in the design of bioreactors for growing cells in the pharmaceutical industry, as well as in drug delivery systems where fluids carry therapeutic agents to targeted sites in the body.

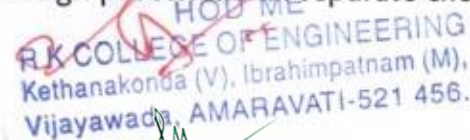


7. Chemical Engineering

- **Reaction Kinetics and Mixing:** In chemical reactors, fluid mechanics is used to ensure proper mixing of reactants, heat transfer, and the uniform distribution of catalysts. This is crucial for maximizing the efficiency of chemical processes.
- **Separation Processes:** Fluid mechanics principles are applied in distillation, filtration, and chromatography to design processes that separate chemicals based on their flow properties.



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- **Pneumatic and Hydraulic Systems:** Fluid power systems, such as hydraulics and pneumatics, rely on fluid mechanics for designing and operating machinery used in manufacturing, construction, and robotics.

8. Marine Engineering

- **Ship Design:** Fluid mechanics is essential in the design of ships and submarines. Engineers use it to optimize hull shapes, reduce drag, and improve stability and fuel efficiency.
- **Underwater Vehicles:** Submersibles and remotely operated vehicles (ROVs) used in underwater exploration or oil extraction rely on fluid dynamics to navigate and operate in underwater environments.
- **Port and Harbor Design:** Fluid mechanics is used to understand wave dynamics, tides, and currents, which influence the design of docks, piers, and breakwaters.


9. Sports Engineering


- **Sports Equipment Design:** Fluid mechanics is used in the design of equipment like bicycles, golf balls, and swimsuits to optimize performance by reducing drag and improving aerodynamics or hydrodynamics.
- **Biomechanics:** Fluid dynamics is also used in analyzing the flow of air or water around athletes, such as swimmers, cyclists, and race car drivers, to improve performance through better techniques and equipment.


10. Food and Beverage Industry

- **Food Processing:** Fluid mechanics is crucial in processes like mixing, pumping, and heat transfer in food manufacturing, ensuring the uniformity and safety of products.
- **Packaging:** Fluid flow principles are applied in designing packaging systems that effectively transport liquids like milk, juice, or sauces without leakage or spillage.


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Feedback form for Two days Seminar on "Applications of Fluid Mechanics"

* (0-Low, 5 High)

Sl. No.	Hall Ticket Number	Information was new to you? (Yes/No)	Would you like to learn more about this topic? (Yes/No)	Rate* the Speaker Knowledge.	Rate* the Speaker presentation.	Rate* the content of slides.	Rate* the session compared to your expectations.	Rate* the Overall session	Additional comments
1	22MC1A0301	Yes	Yes	5	4	4	5	5	Good
2	22MC1A0302	Yes	Yes	5	4	4	5	4	good
3	23MC5A0301	Yes	Yes	5	5	4	5	4	good
4	23MC5A0302	Yes	Yes	4	5	4	5	4	Good
5	23MC5A0303	Yes	Yes	5	5	5	5	5	OK
6	23MC5A0304	Yes	Yes	4	5	4	5	4	Good
7	23MC5A0305	Yes	Yes	5	4	5	4	5	Good
8	23MC5A0306	Yes	Yes	4	5	4	5	4	good
9	23MC5A0307	Yes	Yes	5	4	4	4	4	Good
10	23MC5A0308	Yes	Yes	4	4	4	4	4	OK
11	23MC5A0309	Yes	Yes	5	4	5	5	4	OK
12	23MC5A0310	Yes	Yes	5	4	4	5	4	Good
13	23MC5A0311	Yes	Yes	5	5	5	5	5	Excellent
14	23MC5A0312	Yes	Yes	4	4	5	5	4	Good


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15	23MC5A0313	Yes	Yes	5	5	5	5	5	Excellent
16	23MC5A0314	Yes	Yes	4	5	5	4	5	Good
17	23MC5A0315	Yes	Yes	4	4	4	4	5	Good
18	23MC5A0316	Yes	Yes	4	4	4	4	4	good
19	23MC5A0317	Yes	Yes	4	5	4	4	5	Good
20	23MC5A0318	Yes	Yes	5	5	4	5	4	Good
21	21MC1A0301	Yes	Yes	4	4	5	5	4	Good
22	21MC1A0302	Yes	Yes	4	4	5	5	4	OK
23	21MC1A0303	Yes	Yes	4	5	4	4	4	OK
24	21MC1A0304	Yes	Yes	4	5	4	5	5	Better
25	22MC5A0301	Yes	Yes	4	4	4	5	4	Better
26	22MC5A0303	yes	yes	4	4	5	4	5	(Good)
27	22MC5A0305	Yes	Yes	5	5	4	5	3	OK
28	22MC5A0306	Yes	Yes	5	5	4	4	4	Exam
29	22MC5A0307	yes	yes	5	5	5	4	5	
30	22MC5A0308	Yes	Yes	4	5	4	5	4	Better
31	22MC5A0310	Yes	Yes	5	4	5	5	5	Exam
32	22MC5A0313	Yes	Yes	5	4	5	4	4	Not an

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33	22MC5A0314	Yes	Yes	4	4	4	4	4	Good
34	22MC5A0315	Yes	Yes	5	5	5	4	4	Good.
35	22MC5A0316	Yes	Yes	5	5	5	5	5	Excellent
36	22MC5A0317	Yes	Yes	5	5	5	5	5	Excellent
37	22MC5A0318	Yes	Yes	4	5	4	5	4	Good
38	22MC5A0319	Yes	Yes	5	5	4	5	4	Good
39	22MC5A0320	Yes	Yes	4	5	4	5	4	Good
40	22MC5A0321	Yes	Yes	5	5	5	5	5	Good
41	22MC5A0322	Yes	Yes	4	5	4	5	4	Better
42	22MC5A0323	Yes	Yes	4	5	4	5	4	Good
43	22MC5A0324	Yes	Yes	5	4	5	5	5	Good
44	22MC5A0325	Yes	Yes	4	4	4	4	4	Good
45	22MC5A0326	Yes	Yes	4	4	4	4	4	OK
46	22MC5A0327	Yes	Yes	4	5	4	4	4	Not Bad
47	22MC5A0330	Yes	Yes	5	5	5	5	5	Good
48	22MC5A0331	Yes	Yes	5	4	5	4	5	Good
49	22MC5A0333	Yes	Yes	5	4	5	4	4	Better
50	22MC5A0334	Yes	Yes	4	4	4	4	4	Better

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51	20MC1A0301	Yes	Yes	5	4	5	4	5	ok
52	20MC1A0302	Yes	Yes	4	4	5	4	5	Good
53	20MC1A0303	Yes	Yes	4	4	4	5	4	Good
54	20MC1A0304	Yes	Yes	4	4	4	4	4	Good
55	20MC1A0305	Yes	Yes	5	5	5	4	4	Good
56	20MC1A0306	Yes	Yes	5	5	5	5	5	Good
57	20MC1A0308	Yes	Yes	5	5	5	5	5	Good
58	21MC5A0301	Yes	Yes	4	4	5	4	5	Good
59	21MC5A0302	Yes	Yes	4	4	4	4	4	Good
60	21MC5A0303	Yes	Yes	4	5	4	5	4	Good
61	21MC5A0304	Yes	Yes	5	5	4	5	4	ok
62	21MC5A0305	Yes	Yes	4	5	4	5	4	Good
63	21MC5A0307	Yes	Yes	4	5	4	5	4	Excellent
64	21MC5A0308	Yes	Yes	5	5	5	5	5	Excellent
65	21MC5A0309	Yes	Yes	4	4	4	5	4	Good
66	21MC5A0310	Yes	Yes	4	5	4	5	4	Good
67	21MC5A0311	Yes	Yes	4	5	4	4	5	Excellent
68	21MC5A0312	Yes	Yes	4	4	5	4	4	Excellent

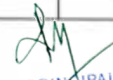

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69	21MC5A0313	yes	yes	5	4	5	5	4	V-Good
70	21MC5A0314	yes	yes	5	5	5	5	5	Excellent
71	21MC5A0315	yes	yes	5	4	4	4	4	Good
72	21MC5A0316	yes	yes	5	5	5	5	5	Excellent
73	21MC5A0318	yes	yes	5	5	5	5	5	Excellent
74	21MC5A0321	yes	yes	5	4	5	5	5	V-Good
75	21MC5A0322	yes	yes	4	4	5	4	5	Good
76	21MC5A0323	yes	yes	5	5	4	4	4	Good
77	21MC5A0325	yes	yes	5	4	5	5	5	V-Good
78	21MC5A0326	yes	yes	5	5	5	5	4	V-Good
79	21MC5A0327	yes	yes	5	4	4	5	5	V-Good
80	21MC5A0329	yes	yes	5	5	5	5	5	Excellent
81	21MC5A0330	yes	yes	5	5	4	4	4	V-Good
82	21MC5A0332	yes	yes	5	4	5	5	4	V-Good
83	21MC5A0333	yes	yes	5	4	4	4	5	V-Good
84	21MC5A0335	yes	yes	5	5	5	5	5	Excellent
85	21MC5A0336	yes	yes	5	5	4	4	5	Good
86	21MC5A0337	yes	yes	5	5	5	4	5	Good


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87	20MC5A0310	Yes	Yes	5	5	5	5	5	Excellent
88	22MC1A0101	Yes	Yes	4	5	4	5	4	Good
89	23MC5A0101	Yes	Yes	4	5	4	5	4	Better
90	23MC5A0102	Yes	Yes	5	4	5	4	5	Good
91	23MC5A0103	Yes	Yes	5	4	5	4	4	Better
92	23MC5A0104	Yes	Yes	4	4	4	4	4	Excellent
93	23MC5A0105	Yes	Yes	5	4	5	4	5	Good
94	23MC5A0106	Yes	Yes	4	5	4	5	4	Good
95	23MC5A0107	Yes	Yes	4	4	4	4	4	ok.
96	23MC5A0108	Yes	Yes	5	4	5	5	5	good
97	23MC5A0109	Yes	Yes	5	4	5	5	4	Good
98	23MC5A0110	Yes	Yes	5	5	5	5	5	good
99	23MC5A0111	Yes	Yes	5	5	5	4	4	good
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101	20MC1A0102	Yes	Yes	4	4	4	4	4	Good
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103	20MC1A0104	Yes	Yes	5	4	5	4	4	ok.
104	20MC1A0105	Yes	Yes	4	5	4	5	4	Good

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105	20MC1A0106	Yes	Yes	4	4	4	4	4	Good
106	20MC1A0107	Yes	Yes	5	5	5	5	5	Excellent
107	21MC5A0103	Yes	Yes	5	5	4	5	4	Best
108	21MC5A0105	Yes	Yes	4	5	5	5	4	ok
109	21MC5A0106	Yes	Yes	5	5	4	4	4	V. Good
110	21MC5A0107	Yes	Yes	4	4	4	4	4	Good


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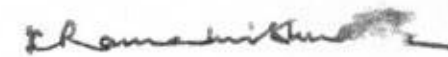
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