



# **INSPIRE ZONE**

**Ambalika Institute Of Management And Technology**  
**DEPARTMENT OF APPLIED SCIENCES**  
**DEPARTMENTAL MAGZINE – (JULY 2022)**



## **Editorial Board**

<b>Dr. Avneesh Kumar Singh</b>	<b>Editor</b>
<b>Mr. Prabha Shankar Dixit</b>	<b>Associate Editor</b>
<b>Dr. Swati Srivastava</b>	<b>Associate Editor</b>
<b>Dr. Pradeep Tripathi</b>	<b>Assistant Editor</b>
<b>Kesa Zaidi Section-F</b>	<b>Student Editor</b>
<b>Dhruv Shukla Sec-E</b>	<b>Student Editor</b>
<b>Jamsed Alam Sec-C</b>	<b>Student Editor</b>



## From HoD Pen



**Mr. Sunil Kumar Singh**  
[sunilkumarsingh@ambalika.co.in](mailto:sunilkumarsingh@ambalika.co.in)

Dear Students,

I am delighted to welcome you to the academic magazine of our institution. This magazine provides a platform for students to showcase their academic achievements, artistic talents, and research work. I encourage each one of you to participate in this magazine and share your experiences with others.

Academic excellence, creativity, and innovation are the hallmarks of a successful student. The academic magazine is an excellent opportunity for you to demonstrate these qualities. I hope that this magazine will inspire and motivate you to strive for greater achievements and reach your full potential.

Wishing you all the best,



## Content Indexing

S.No	Content	Author	Page No.
1	Editorial	Dr. Avneesh Kumar Singh	1
2	Innovation in Physics class	Shivani Kumari, Sec E	2
3	Innovation in Chemistry class	Simran, Sec F	3
4	Importance of games in study Engineering	Pranjal Rai, Sec A	4
5	Need of relaxation in study	Anand Singh, Sec E	5
6	Need Of Getting English Knowledge For Engineering Students	Dr. Avneesh Kumar Singh	6



## Inside This issue

Dear Readers,

Welcome to the latest edition of our academic magazine, a platform that has been designed to provide you with insightful and informative content that can help you in your academic journey.

As students, we all face various challenges in our academic pursuits, whether it be managing time, staying focused, or staying motivated. But, it is important to remember that these challenges are opportunities for growth and development, and they can help us build resilience and determination.

In this edition, we have included a range of articles that aim to address some of the common challenges faced by students, as well as to provide you with tips and advice on how to overcome them. From the latest advancements in technology that can help you improve your study habits, to tips on how to manage stress and maintain a healthy lifestyle, this magazine is packed with practical and useful information.

We have also included features on successful students and alumni who have overcome obstacles and achieved their academic goals, and we hope that their stories will inspire you to reach for the stars and never give up on your dreams.

In conclusion, we hope that this edition of our academic magazine will help you in your academic journey and encourage you to keep pushing yourself to achieve your goals. Remember, your future is in your hands, and with hard work and determination, you can make it anything you want it to be.

*Dr. Avneesh Kumar Singh*  
*Associate Professor*  
*avneeshkumarsingh@ambalika.co.in*



## Innovation in Physics class

There are many exciting innovations happening in the field of physics education. Here are a few examples:

1. **Virtual and augmented reality:** Physics can be a difficult subject to visualize, especially when it comes to abstract concepts like quantum mechanics. Virtual and augmented reality technologies can help students better understand these concepts by allowing them to interact with 3D models and simulations.
2. **Gamification:** Many educators are using games and gamification techniques to make physics more engaging and fun. These games can range from simple quizzes to complex simulations that allow students to explore different physical phenomena in a hands-on way.
3. **Online labs:** Online labs allow students to conduct experiments and collect data in a virtual environment. This can be especially helpful for schools that don't have access to expensive lab equipment, or for students who are learning remotely.
4. **Flipped classroom:** In a flipped classroom, students watch lectures and complete readings outside of class, and then come to class to work on problem-solving activities and projects. This can be a more effective way to teach physics because it allows students to apply what they've learned in a more active and engaging way.
5. **Collaborative learning:** Physics can be a challenging subject, and working together in groups can help students learn from each other and develop a deeper understanding of the material. Many educators are using collaborative learning techniques in their physics classes to encourage students to work together and share their ideas.

BY

*Shivani Kumari, ICSE Sec E  
Ambalika Institute of Management & Technology*



## Innovation in Chemistry Class

There are many exciting innovations happening in the field of chemistry education. Here are a few examples:

1. **Online simulations and virtual labs:** Similar to physics, online simulations and virtual labs can help students learn and explore chemical reactions and properties in a safe, virtual environment.
2. **Interactive textbooks:** An interactive textbook is a digital textbook with additional elements of interactivity built in. An interactive textbook may incorporate artificial intelligence to quiz students throughout chapters, 3D diagrams, and plenty of media such as images, videos and GIFs.
3. **Gamification:** Gamification is the use of game thinking and game procedure to engage the audience and solve problems (Zichermann, 2010). Building on this idea, the aim of this investigation is to create a video-game (based on gamification) that can be used to assess the students' performance competence in chemical problem-solving. The Google Read-Along app is a great example of gamification in education. It uses gamified features such as points and badges to help improve the reading experience for young learners who are just beginning their journey with books.
4. **Interactive and Collaborative Approaches to Teaching Chemistry:** Chemistry can be a challenging subject that benefits from collaborative learning. Group projects, problem-solving activities, and peer tutoring can help students learn from each other and develop a deeper understanding of the material.
5. **Inquiry-based learning:** Inquiry-based learning is a teaching method that focuses on student-led exploration and discovery. The inquiry-based approach is a teaching strategy that facilitates students learning scientific concepts and about the nature of chemistry through experimental research, allowing them to participate in chemistry classes as researchers.

By:

*Simran, CSE, Sec F  
Ambalika Institute of Management & Technology*



## Impotence of games in study Engineering

1. **Enhance Problem-Solving Skills:** Games often require players to solve problems and overcome challenges. In engineering games, players may be asked to design structures, build machines, or solve puzzles using engineering principles. By doing so, they develop their critical thinking and problem-solving skills, which are essential in engineering.
2. **Promote Creativity:** Engineering often requires creative solutions to complex problems. Games can encourage creativity by presenting players with challenges that require them to think outside the box and come up with unique solutions. By doing so, they can develop their creativity and innovative thinking skills, which can be invaluable in their engineering careers.
3. **Provide Hands-On Learning:** Many engineering games allow players to interact with virtual environments and experiment with different materials and equipment. This can be especially helpful in fields like civil engineering, where hands-on experience with construction equipment and materials can be difficult to come by. By providing a hands-on learning experience, games can help students better understand the practical applications of engineering principles.
4. **Foster Teamwork and Collaboration:** Many engineering projects require teamwork and collaboration. Engineering games can provide a platform for students to practice working together towards a common goal. This can help them develop their communication and teamwork skills, which are essential in many engineering fields.
5. **Make Learning Fun and Engaging:** Finally, games can make learning engineering more fun and engaging. By presenting concepts and principles in a fun and interactive way, games can help students stay motivated and interested in the subject matter. This can be especially helpful for students who may struggle with traditional lecture-style teaching methods.

By  
Pranjal Rai, CSE, Sec A  
Ambalika Institute of Management & Technology





## Need of Recreation in Study

Relaxation is important in studying because it can help:

1. **Reduce Stress:** Studying can be stressful, especially during exams and deadlines. Relaxation techniques, such as deep breathing, meditation, or yoga, can help reduce stress and anxiety levels, allowing students to focus better on their studies.
2. **Increase Focus and Productivity:** Relaxation can help improve focus and productivity by reducing mental fatigue and increasing energy levels. Taking short breaks and engaging in relaxation techniques can help students recharge and return to their studies with renewed energy and focus.
3. **Improve Memory and Retention:** Relaxation techniques, such as meditation and mindfulness, can help improve memory and retention by reducing distractions and improving concentration. By taking short relaxation breaks during study sessions, students can retain more information and perform better on exams.
4. **Prevent Burnout:** Studying for extended periods without taking breaks can lead to burnout and fatigue. Relaxation techniques can help prevent burnout by allowing students to recharge and return to their studies with a fresh perspective.
5. **Enhance Overall Well-Being:** Relaxation can improve overall well-being by reducing stress, improving mood, and promoting better sleep. When students take care of their physical and mental health, they are better equipped to handle the demands of studying and perform at their best.

BY

*Anand Singh, M.E. Sec E  
Ambalika Institute of Management & Technology*



## Keep It Up Students

Here are some tips for studying in a semester system:

1. **Create a study schedule:** Develop a study plan that includes all the important topics and tasks that you need to cover throughout the semester.
2. **Attend all classes:** Attend all your classes regularly and try to be actively involved in class discussions to keep up with the course material.
3. **Stay organized:** Keep all your course materials and notes in one place to avoid confusion and loss of information.
4. **Manage your time wisely:** Set aside specific blocks of time for studying, completing assignments, and other important tasks.
5. **Collaborate with others:** Join a study group or seek help from your classmates or professors if you need clarification or help with difficult topics.
6. **Stay motivated:** Stay motivated by keeping a positive attitude and rewarding yourself for your achievements.
7. **Take breaks:** Take short breaks to avoid burnout and to refresh your mind.
8. **Review regularly:** Review and revise your notes and materials regularly to reinforce your understanding and retention of the course material.
9. **Seek help when needed:** Don't hesitate to seek help from your professors or academic advisors if you're struggling with a particular subject or course.
10. **Stay healthy:** Take care of your physical and mental health by exercising regularly, eating a balanced diet, getting enough sleep, and taking time to relax and de-stress.

BY

*Dr. Avneesh Kumar Singh*  
*Associate Professor*  
*Ambalika Institute of Management & Technology*



## Vision & Mission of Institute

### Vision of Institute

To nourish the students, blossom them into tomorrow's world class professionals and good human beings by inculcating the qualities of sincerity, integrity and social ethics.

### Mission of Institute

1. To provide the finest infra structure and excellent environment for the academic growth of the students to bridge the gap between academia and the demand of industry.
2. To expose students in various co- curricular activities to convert them into skilled professionals.
3. To grind very enthusiastic engineering and management student to transform him into hard working, committed, having a zeal to excel, keeping the values of devotion, concern and honesty.
4. To involve the students in extracurricular activities to make them responsible citizens



## Vision & Mission - Department of Applied Sciences

### **Vision - Department of Applied Sciences**

To educate undergraduate students in the field of technology, service, applied sciences, preparing sincere and socially responsible students to thrive and contribute to an ever-changing global society.

### **Mission - Department of Applied Sciences**

1. To provide strong foundation to the students through basic courses and value added teaching in areas of technical fields, innovation, personality development and competitive abilities and guide for their respective discipline.
2. To renders proactive and adaptive services systems those provide students with a flexible yet solid learning infrastructure.
3. To create and propagates knowledge and tools at the interface between areas of engineering, emerging trends industries and other core areas of Applied Science and Humanities.



## Programme Outcome

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. 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.
4. 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.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. 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.
7. 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.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. 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.
11. 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.
12. 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.



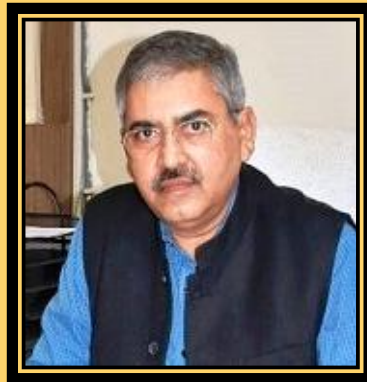
## Our Patrons

Mr. Ambika. Mishra  
Executive Director  
Ambalika Institute of management  
& technology, Lucknow



Prof. (Dr.) S.Q. Abbas  
Director General  
Ambalika Institute of management  
& technology, Lucknow

Prof. (Dr.) Ashutosh Dwivedi  
Director  
Ambalika Institute of management  
& technology, Lucknow



Prof. (Dr.) Shweta Mishra  
Additional Director  
Ambalika Institute of management  
& technology, Lucknow

Prof. (Dr.) R. S. Mishra  
Dean  
Ambalika Institute of management  
& technology, Lucknow

