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A Report on One-Day Industry Visit to "Arran Scientific" Organized by Department of Electronics & Communication Engineering on 18.04.2026

Report Submitted by: Dr. Rahul Mondal, Assistant Professor, Department of Electronics & Communication Engineering.
Resource Person Details: Nayuni Nanda Kishore Babu & Dr. Shilpa Nayuni, Directors, Arran Scientific Private Limited.
Participants: 40 (Students)
Mode of Conduct: Offline
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The Department of Electronics & Communication Engineering organized a one-day industry visit to Arran Scientific, Madanapalle, on 18.04.2026 for 40 III-year ECE students. The visit offered students an opportunity to understand how biology, artificial intelligence, and electronics are integrated in modern research and product development.
Arran Scientific is based in Madanapalle, Chittoor district, Andhra Pradesh, and operates as a private company incorporated in 2020. Public company information identifies its registered office at APIIC, Lala Valasapalli Panchayat, Madanapalle, and classifies its business under manufacture of chemical and related products.

About the company

Arran Scientific presents itself as a contract research and development organization working in life sciences and project services. Its public materials state that it has developed products in areas connected with life sciences and sterilization-oriented innovation.
External incubation-related sources also associate Arran Scientific, Madanapalle with cancer diagnostics research and diagnostic kit development. In addition, the company is linked with products such as point-of-care diagnostic iELISA and LFT kits for Trichomoniasis in cattle, showing its engagement with applied biotechnology and diagnostics.

Learning during the visit

During the visit, students learned how interdisciplinary research combines cell and molecular biology with artificial intelligence and electronics. The interaction helped students understand that modern healthcare and diagnostic systems increasingly depend on collaboration between biological sciences, instrumentation, data analysis, and intelligent electronic systems.

The company team explained their research environment and demonstrated facilities related to tissue culture and specialized laboratory work. Students were introduced to the dark room facility, where they observed how controlled laboratory environments support tissue culture processes, diagnostic observation, and research aimed at detection and destruction of cancer cells.

Students also gained exposure to work related to anti-bacterial medicine and solutions intended to address harmful bugs and similar biological threats. This helped them connect classroom knowledge in sensors, embedded systems, signal processing, and AI-enabled electronics with practical biomedical and laboratory applications.

Areas of work discussed

The visit highlighted a broad range of scientific and product-oriented work associated with Arran Scientific. Based on the information shared during the visit and supporting company-related references, the areas include:

- Research and development in cell and molecular biology.
- Integration of AI and electronics instruments in biological and diagnostic applications.
- Tissue culture and controlled laboratory experimentation.
- Research support for cancer detection and destruction studies.
- Development of anti-bacterial and diagnostic products.
- Work associated with immunological, laboratory, and biotechnology-related products aligned with categories such as blood products, diagnostic reagents, disinfectant-related products, and biological materials.

Relevance to ECE students

The visit was especially useful for Electronics & Communication Engineering students because it demonstrated that electronics is not limited to traditional communication systems alone. Biomedical devices, laboratory instruments, imaging systems, automation platforms, and AI-assisted diagnostic tools all require strong foundations in electronics, embedded systems, signal acquisition, data processing, and intelligent control.

By observing interdisciplinary research at Arran Scientific, students could appreciate how ECE knowledge can contribute to healthcare innovation, biotechnology research, and diagnostic product development. The visit therefore broadened their awareness of career opportunities in biomedical electronics, healthcare instrumentation, AI-enabled diagnostics, and research-driven technology industries.

Outcome of the Industry Visit

1. Students gained practical exposure to the interdisciplinary application of Electronics & Communication Engineering in cell and molecular biology, AI, and medical instrumentation.
2. The visit enhanced understanding of how electronic systems, sensors, and AI tools are integrated into biological research and diagnostic devices.
3. Students observed the dark room and tissue-culture facilities, improving their awareness of controlled laboratory environments used for cancer-cell detection and destruction research.
4. The interaction with company personnel helped students connect classroom concepts (signals, embedded systems, AI) with real-world biomedical and diagnostic product development.
5. Students learned about anti-bacterial medicine development and related research, broadening their outlook toward electronics-based healthcare solutions.

6. The visit highlighted the role of ECE engineers in designing instruments, automation, and data-processing systems for life-science and diagnostics industries.
7. Students became aware of emerging career opportunities in biomedical instrumentation, AI-driven diagnostics, research-based industries, and healthcare technology.
8. The program motivated students to consider higher studies or projects in interdisciplinary areas such as biomedical electronics, embedded healthcare devices, and AI in life sciences.
9. Overall, the visit strengthened the bond between academic learning and industrial practice, encouraging students to pursue innovation-oriented and research-driven careers.