

Title:

The Interns at NCAIR

Introduction:

Welcome to the exciting world of interns at the National Center for Artificial Intelligence and Robotics (NCAIR)! As we delve into the frontiers of cutting-edge technology and innovation, the role of interns becomes increasingly vital in shaping the future of AI and robotics. This introduction outlines the significance of gathering data on interns' experiences at NCAIR and how this data will not only enhance our internship program but also contribute to the advancement of AI and robotics as a whole.

At NCAIR, we recognize that interns are not merely temporary additions to our team; they are the driving force behind our progress and the embodiment of fresh ideas and perspectives. As an institution committed to fostering talent and nurturing the next generation of AI and robotics enthusiasts, understanding the impact of our internship program is of paramount importance.

This data collection initiative aims to delve into various aspects of interns' journeys at NCAIR. From the moment they join our dynamic environment to the culmination of their internships, every step of their experience is a treasure trove of insights that can propel us toward continuous improvement and growth. We seek to gain a comprehensive understanding of their learning opportunities, project contributions, collaborations with mentors, and overall satisfaction.

The outcomes of this data-driven endeavor are two-fold: firstly, it empowers us to tailor our internship program, ensuring that it remains engaging, enriching, and relevant to the evolving landscape of AI and robotics. Secondly, the data we collect has the potential to contribute to broader research on internship experiences, both within our industry and beyond.

Throughout this process, we place immense value on the voice of our interns. Their candid feedback and valuable suggestions will help us fine-tune our strategies, strengthen our support mechanisms, and create an inclusive environment that encourages creativity and innovation.

As we embark on this journey of data gathering, we extend our sincere gratitude to each and every intern who has contributed their time and passion to CAIR. Your dedication fuels our pursuit of excellence, and we are committed to fostering an environment where your potential can flourish.

In the pages that follow, we explore the intricacies of our internship program, the methodologies employed for data collection, and the inspiring stories of interns who have made a lasting impact on our center and the field of AI and robotics.

Join us on this expedition into the world of intern experiences at the Center for Artificial Intelligence and Robotics, where innovation knows no bounds, and together, we shape the future of technology.

The Internship Program:

There are three major types of interns here at NCAIR which are

1. National Youth Service Corps (NYSC)
2. Students Industrial Work Experience Scheme (SIWES)
3. NANO interns

And they all have different things they do at NCAIR.

An Intern, or Trainee, is an individual completing entry-level work for a company to gain experience in their field. Intern job duties vary by industry, but their common responsibilities include learning and

becoming proficient in software, completing tasks assigned by their supervisor and attending meetings where they take minutes.

Intern duties and responsibilities

An Intern's responsibilities and duties vary drastically depending on the unit they work for. Some common duties that you can assign to Interns are:

Fulfilling tasks assigned by a supervisor

Performing clerical duties

Managing social media accounts

Event handling or planning

Job shadowing

Learning technical skills related to FABLab, and AI & Robotics lab, whereby they are divided into software and hardware units.

1) NYSC Interns –

The National Youth Service Corps (NYSC) program at the National Center for Artificial Intelligence and Robotics (NCAIR) is an exemplary platform that brings together the passion and potential of young graduates with the cutting-edge advancements in AI and robotics. This brief write-up highlights the transformative journey of youth service corps members as they contribute their skills and enthusiasm to the dynamic world of technology at NCAIR.

NCAIR's commitment to nurturing talent and driving innovation is vividly demonstrated through its partnership with the NYSC program. Each year, a diverse group of corps members, fresh graduates from various

academic backgrounds, join NCAIR to embark on a six-month journey that blends education, training, and practical experience.

Throughout their service, these young minds are exposed to a myriad of opportunities that enable them to delve deep into the realms of artificial intelligence and robotics. From engaging workshops and training sessions led by industry experts to hands-on experience in state-of-the-art laboratories, NCAIR ensures that the corps members gain a holistic understanding of the field's latest developments.

At NCAIR, the corps members are not mere observers; they are active contributors to the center's mission. Assigned to projects of real significance, they collaborate with seasoned researchers and engineers, contributing their ideas and perspectives to create solutions that address real-world challenges.

Moreover, the supportive and inclusive environment at NCAIR empowers the corps members to experiment, innovate, and think beyond boundaries. The center fosters an atmosphere that encourages curiosity and risk-taking, leading to breakthroughs that have the potential to shape the future of technology.

The impact of the NYSC program at NCAIR extends beyond the confines of the center. As the corps members complete their service, they carry with them a wealth of knowledge, skills, and experiences that will undoubtedly leave a lasting imprint on their respective fields. NCAIR takes pride in being a launchpad for these bright young minds, propelling them toward successful careers as technologists, researchers, and innovators.

NYSC Interns are Graduates that are currently in phase of serving the Nation and are in the process of becoming Graduates.

In conclusion, the NYSC program at the National Center for Artificial Intelligence and Robotics is a testament to the power of collaboration between passionate youth and pioneering technology. It exemplifies the fusion of ambition and innovation, as together, the corps members and

NCAIR strive to build a future where artificial intelligence and robotics are harnessed for the betterment of society.

As NCAIR continues its journey as a leading center in AI and robotics, it remains steadfast in its commitment to empowering tomorrow's innovators through the transformative experience of the National Youth Service Corps.

2) IT AND SIWES (SIWES) –

The National Center for Artificial Intelligence and Robotics (NCAIR) takes great pride in its collaboration with Students Industrial Work Experience Scheme (SIWES) participants, as it represents a vital bridge between theoretical knowledge and real-world application. This brief write-up sheds light on the invaluable contribution of SIWES students at NCAIR and the transformative impact this program has on shaping future technology leaders.

As a renowned institution at the forefront of AI and robotics, NCAIR opens its doors to SIWES students from diverse educational backgrounds, eager to embark on a practical journey in the world of advanced technology. The program, which typically spans six months, provides these aspiring technologists with a unique opportunity to gain hands-on experience and exposure to the dynamic industry landscape.

At NCAIR, SIWES students are seamlessly integrated into the center's ongoing projects, working side by side with skilled researchers and engineers. This immersive experience allows them to witness firsthand the cutting-edge research and development taking place at NCAIR, inspiring them to think critically and creatively.

Through carefully curated mentorship and training programs, NCAIR ensures that SIWES students receive comprehensive guidance in their chosen fields. Whether it be machine learning, computer vision, natural

language processing, or robotics, the center offers a nurturing environment that encourages curiosity and innovation.

As active participants in the research process, SIWES students are encouraged to contribute their ideas and insights to the projects they are involved in. This not only instills a sense of ownership and pride in their work but also fosters a deeper understanding of the challenges and opportunities that AI and robotics present.

The impact of the SIWES program at NCAIR extends beyond the boundaries of the center. As these students return to their academic institutions upon completion of their training, they bring back a wealth of practical knowledge that enriches their learning experience. They become ambassadors of real-world application, inspiring their peers and educators to embrace the potential of AI and robotics.

For NCAIR, hosting SIWES students is not merely an act of corporate social responsibility; it is an investment in the future of technology. By nurturing young talent and providing them with the right tools and exposure, the center plays a significant role in shaping the next generation of technology leaders and problem solvers.

SIWES Interns are students that are currently in their Industrial Training or students Industrial Work Experience Scheme and are waiting for their next Semesters to commence.

In conclusion, the collaboration between SIWES students and the National Center for Artificial Intelligence and Robotics exemplifies the powerful synergy between academia and industry. It reinforces the idea that theoretical knowledge gains relevance and potency when applied in practical scenarios. As NCAIR continues its mission of innovation, it remains committed to empowering SIWES students, igniting the spark of curiosity, and driving forward the frontiers of AI and robotics.

3) NANO –

The National Center for Artificial Intelligence and Robotics (NCAIR) proudly welcomes a new wave of talent through its NANO Internship Program, where the convergence of nanotechnology and cutting-edge technology opens doors to groundbreaking innovation. In this brief write-up, we explore the remarkable journey of NANO interns at NCAIR and the profound impact they make in shaping the future of AI and robotics.

The NANO Internship Program at NCAIR is a testament to the center's commitment to pushing the boundaries of technological advancement. As nanotechnology emerges as a transformative force in various industries, NCAIR recognizes its potential to revolutionize AI and robotics. Thus, the NANO Internship Program aims to bridge the gap between nanotechnology and AI, fostering a unique and interdisciplinary learning experience.

Nano Interns are students that are done with their Junior or Senior WAEC and are waiting for their next class to commence.

Furthermore, the NANO Internship Program fosters a spirit of collaboration and knowledge-sharing among interns, researchers, and the broader AI and robotics community. NCAIR recognizes that the solutions to complex challenges lie in collective efforts and interdisciplinary approaches.

In conclusion, the NANO Internship Program at the National Center for Artificial Intelligence and Robotics embodies the spirit of exploration, innovation, and transformative thinking. As NANO interns pave the way for the future, NCAIR remains committed to providing them with the platform and resources to make a lasting impact on AI and robotics, fueling the evolution of technology for a better tomorrow.

Benefits of Hosting Interns:

Hosting interns at the National Center for Artificial Intelligence and Robotics (NCAIR) offers several significant benefits for both the organization and the interns themselves. Here are some of the key advantages:

Fresh Perspectives and Innovation: Interns bring a fresh outlook and new ideas to the organization. Their different academic backgrounds and experiences often lead to innovative approaches to problem-solving and research, fostering creativity within NCAIR.

Talent Pipeline: Hosting interns allows NCAIR to identify and nurture potential future employees. It serves as an effective talent pipeline, enabling the center to recruit skilled individuals who have already experienced the organization's work culture and projects.

Skill Enhancement and Learning Opportunities: Interns get hands-on experience in their chosen fields, enabling them to apply theoretical knowledge to real-world situations. NCAIR provides learning opportunities, workshops, and exposure to advanced technologies, enhancing the interns' skill sets.

Project Support and Increased Productivity: Interns can assist in ongoing projects, research, and day-to-day tasks, providing valuable support to NCAIR's teams. This increased manpower often boosts productivity and accelerates project progress.

Diversity and Inclusion: Hosting interns promotes diversity and inclusion within the organization. NCAIR gains access to a diverse pool of talents and perspectives, which enhances the center's ability to tackle complex challenges from multiple angles.

Mentoring and Leadership Development: Internship programs at NCAIR allow experienced professionals to mentor and guide the interns. This mentorship not only helps the interns but also contributes to the development of leadership and coaching skills among the staff.

Brand Visibility and Reputation: A well-structured and successful internship program enhances NCAIR's reputation as an institution that supports and invests in emerging talent. Positive experiences shared by interns can attract more students and applicants in the future.

Research and Project Exploration: Interns often bring fresh research ideas and a willingness to explore new avenues. This can lead to the initiation of novel projects or the expansion of existing ones, contributing to NCAIR's research portfolio.

Networking and Collaboration: Interns may collaborate with other interns, staff, or external partners during their tenure. This facilitates networking opportunities and establishes collaborative relationships that can extend beyond the internship period.

Contributing to Society: By hosting interns, NCAIR plays a role in shaping and nurturing the future workforce in AI and robotics. Empowering these young minds to contribute to the field positively impacts the broader society by advancing technological frontiers.

Overall, hosting interns at NCAIR is a mutually beneficial experience that fosters growth, learning, and progress for both the organization and the interns. It aligns with NCAIR's mission of driving innovation and nurturing talent in the fields of artificial intelligence and robotics.

Learning and Development Opportunities:

At NCAIR, Interns have access to a Major learning program and a few minor ones.

The Major One is called the NAIDT Program also called the NDG Program and Minor projects that are done amongst interns on whatever feasible idea they have and have spoken to their supervisor and given the go-ahead to continue with the project.

NAIDT NDG Program: This is a program organized by NCAIR for interns, it is split into two namely **(1) INTRODUCTION TO PYTHON (BEGINNERS CLASS)** and **(2) INTRODUCTION TO AI AND DATA SCIENCE (INTERMEDIATE CLASS)** to get the fundamentals of python Programming language for beginners and also the fundamentals of AI and Data Science for intermediates respectively. It is for all interns mainly those who do not have knowledge about Python and AI & Data Science.

At the end of each program which lasts for a whole month and also depending on what time you pick (8AM-12PM MONDAY TO WEDNESDAY OR 8AM-12PM THURSDAY TO SATURDAY OR 12PM-4PM MONDAY TO WEDNESDAY OR 12PM-4PM THURSDAY TO SATURDAY OR 4PM-8PM MONDAY TO WEDNESDAY OR 4PM-8PM THURSDAY TO SATURDAY) depending on the time you pick, there are projects for each students for both the beginners and intermediate classes which helps the both the instructor and the student know their strengths and weaknesses. The intermediate Students partake in a Kaggle Data Science competition to weigh their strengths.

As an Intern in NCAIR, you will first undergo the onboarding session in the FabLab, PCB Lab, ShopBot and Laser Cutter Lab, then also go through compulsory NAIDT programs.

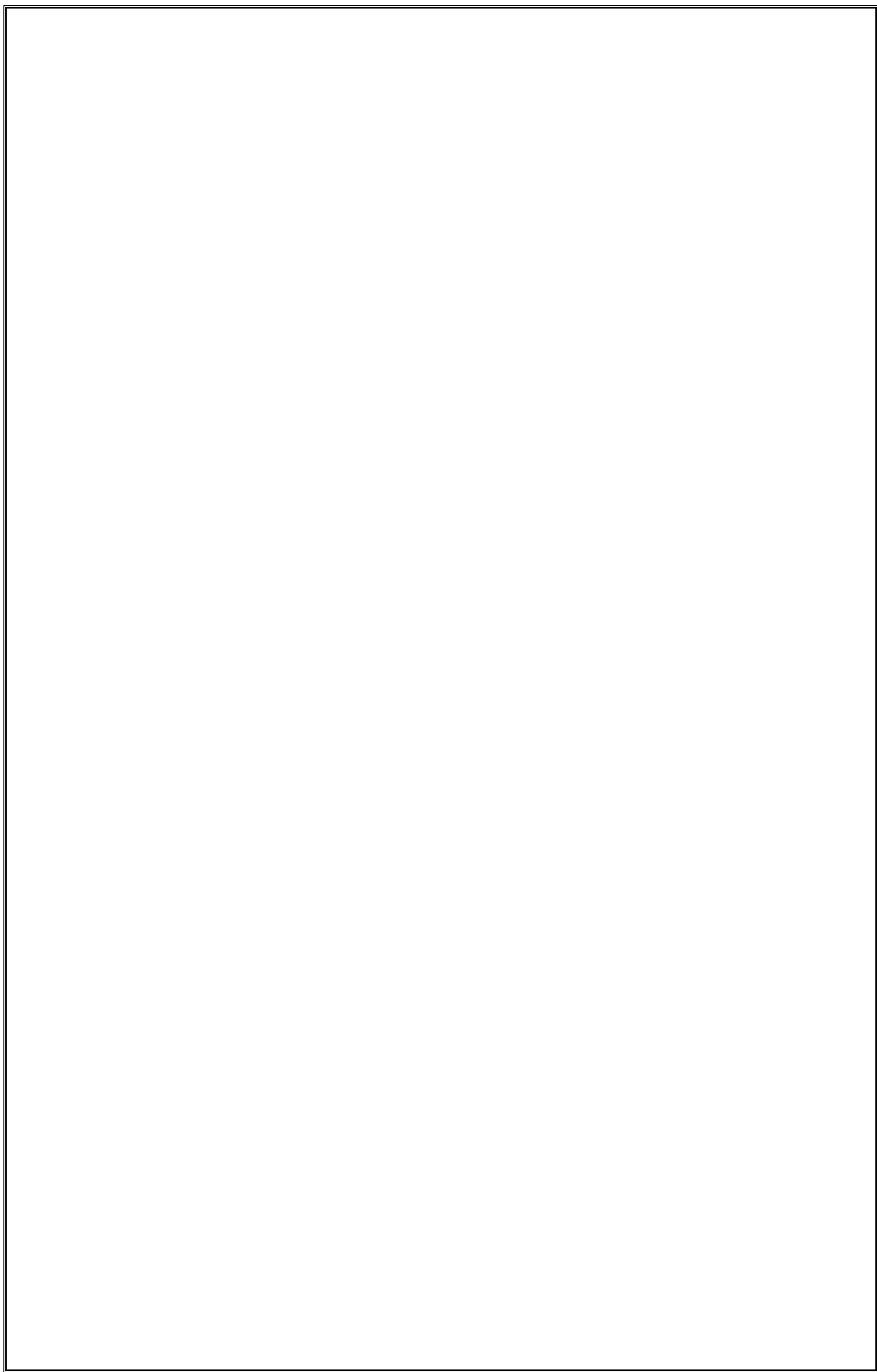
FabLab: Also known as the Fabrication Lab; This is the lab where you learn how to use the 3Dprinters, The Vinyl cutter and all soldering works are done.

PCB Lab: This is the lab where the whole PCB work is done from drilling, Buffing, Through hole plating, Micro etching and Electroplating and so on.

ShopBot and Laser Cutter Lab: This is the Lab where you learn how to use the Laser Cutter to cut or engrave on small wood or Acrylic Materials. And also the ShopBot that is used to cut or engrave on large wood.

To become a intern in NCAIR:

Send an application with your SIWES letter (If you want to do your SIWES) or your NYSC details and University details to the Headquarters (NITDA) . Ensure your email is attached or phone number is attached to your letter so you can be reach if accepted. Any further details please contact the office of check their official website.



Impactful Projects:

There are a lot of projects that have been worked on by interns at the center and I will mention a few:

- 1) The Self-balancing robot
- 2) Otto the Dancing Robot
- 3) Object Avoiding Robot
- 4) Fire Fighting Robot
- 5) Robotic Arm
- 6) Spider Robot
- 7) Robotic Dog
- 8) Multi-terrain combat tank
- 9) Drone
- 10) A lot of Arduino projects and lots more....

Conclusion:

In conclusion, interns play a vital role in organizations like the National Center for Artificial Intelligence and Robotics (NCAIR). Their contributions go beyond mere temporary assistance; they bring fresh perspectives, innovative ideas, and a passion for learning that invigorates the workplace and pushes the boundaries of technological advancement.

At NCAIR, the internship programs serve as transformative experiences for young talent seeking to make a difference in the world of AI and robotics. Through hands-on projects, mentorship from seasoned professionals, and exposure to cutting-edge technologies, interns gain valuable skills and knowledge that prepare them for successful careers.

Moreover, NCAIR's commitment to hosting interns is not only an investment in the interns' futures but also a strategic move to build a strong talent pipeline. Many interns transition into full-time roles,

becoming integral members of the organization and contributing significantly to its ongoing research and development efforts.

The benefits of hosting interns at NCAIR extend to the organization's growth, innovation, and reputation. Interns' diverse backgrounds and fresh perspectives foster creativity, while their contributions to ongoing projects boost productivity and accelerate progress.

Furthermore, the internship programs at NCAIR promote diversity and inclusion, creating an inclusive and supportive environment that embraces talent from all walks of life. Through mentorship and collaboration, NCAIR nurtures the leadership potential of its interns, ensuring that they become the next generation of AI and robotics pioneers.

As NCAIR continues to evolve as a leading center in the field, the internship programs remain a cornerstone of its success. These programs exemplify the center's dedication to empowering the next generation of technology leaders, working tirelessly to shape a future where artificial intelligence and robotics drive progress and improve lives.

In conclusion, the National Center for Artificial Intelligence and Robotics recognizes the immense value that interns bring to the organization and the broader technology community. By providing transformative experiences, fostering innovation, and building a talented workforce, NCAIR's internship programs stand as a testament to the power of investing in and nurturing young talent, ultimately driving forward the frontiers of AI and robotics.