DESIGNING SCADA APPLICATION SOFTWARE A PRACTICAL Printable PDF

Designing SCADA Application Software: A Practical Approach

Supervisory Control and Data Acquisition (SCADA) systems are the backbone of modern industrial automation, enabling real-time monitoring, control, and data analysis across various sectors such as manufacturing, energy, water treatment, and transportation. Designing SCADA application software that is practical, reliable, and scalable is crucial for ensuring operational efficiency and safety. This article explores the essential principles, best practices, and practical steps involved in developing effective SCADA applications that meet industry standards and organizational needs.

Understanding the Fundamentals of SCADA System Design

Before delving into the practical aspects, it?s vital to understand what constitutes a robust SCADA system. It typically comprises hardware components like sensors, controllers, and communication infrastructure, alongside software modules responsible for data acquisition, processing, visualization, and control.

Key Components of a SCADA System

- **Human-Machine Interface (HMI):** The visual interface that operators use to monitor and control processes.
- **Data Acquisition System:** Collects data from sensors and field devices.
- **Communication Infrastructure:** Facilitates data transfer between field devices and the central system (e.g., Ethernet, serial, wireless).
- **Control System:** Executes commands to field devices based on operator input or automated logic.
- **Database and Data Management:** Stores historical data, logs, and configuration information.

Practical Steps in Designing SCADA Application Software

Designing practical SCADA software involves a structured approach that emphasizes clarity, scalability, security, and user-friendliness. The following steps outline a comprehensive methodology.

1. Define Clear Requirements and Objectives

Begin with a thorough understanding of the operational needs, including:

- The scope of control and monitoring
- Types of data to be collected
- User roles and access levels
- Performance and reliability expectations
- Regulatory compliance and safety standards

Engage stakeholders?operators, engineers, maintenance teams?to gather insights. Clear requirements prevent scope creep and ensure the system aligns with operational goals.

2. Choose the Right Hardware and Communication Protocols

Compatibility between hardware and software is critical. Consider factors such as:

- Compatibility with existing field devices
- Support for industry-standard communication protocols like Modbus, OPC UA, DNP3, or Ethernet/IP
- Reliability and redundancy features
- Scalability to accommodate future expansion

Selecting robust and flexible hardware lays a solid foundation for your software design.

3. Develop an Intuitive Human-Machine Interface (HMI)

The HMI is the primary touchpoint for operators. Practical design principles include:

- Use clear, concise graphics and labels
- Implement standardized color schemes (e.g., green for normal, red for alarms)
- Provide real-time data visualization with charts, gauges, and trend graphs
- Incorporate intuitive navigation and alarm management
- Enable quick access to critical controls and information

A well-designed HMI reduces operator fatigue, minimizes errors, and enhances situational awareness.

4. Implement Modular and Scalable Software Architecture

Design the software with modularity in mind:

- Use a layered architecture separating data acquisition, processing, and presentation
- Enable easy addition of new devices or functionalities
- Adopt scalable frameworks to support increased data volume or process complexity

Modularity facilitates maintenance, upgrades, and troubleshooting, making the system practical for long-term use.

5. Prioritize Data Management and Security

Data integrity and security are vital:

- Use reliable database systems (e.g., SQL, NoSQL) for historical data
- Implement data validation and error handling routines
- Incorporate user authentication, role-based access controls, and audit logs
- Secure communication channels with encryption and VPNs
- Regularly update and patch software to mitigate vulnerabilities

A secure system safeguards against cyber threats and ensures compliance with industry standards.

6. Incorporate Automation and Alarm Management

Automation reduces manual intervention:

- Define clear control logic based on process parameters
- Use programmable logic controllers (PLCs) and scripting for automation routines
- Configure alarms with priority levels and clear descriptions
- Enable automatic notifications via email or SMS for critical events

Effective alarm management prevents alarm fatigue and ensures timely response to issues.

7. Testing and Validation

Practical SCADA software must undergo rigorous testing:

- Conduct unit tests for individual modules

- Perform integration testing to ensure seamless operation
- Simulate real-world scenarios to test system response
- Validate data accuracy, control commands, and alarm functionality

Testing minimizes operational disruptions and guarantees system reliability.

8. Documentation and Training

Comprehensive documentation facilitates maintenance and future upgrades:

- Maintain detailed user manuals, system architecture diagrams, and troubleshooting guides
- Conduct operator training sessions emphasizing practical use and safety protocols

Well-trained personnel are vital for maximizing system effectiveness.

Best Practices for Practical SCADA Software Development

In addition to the structured steps, adhering to best practices enhances practicality and reliability.

1. Focus on User-Centric Design

- Prioritize operator comfort and ease of use
- Gather feedback regularly and iterate on HMI design

2. Emphasize Reliability and Redundancy

- Use redundant hardware components
- Implement failover strategies for critical systems

3. Modular Software Development

- Use standardized development frameworks
- Enable easy updates and patches

4. Regular Maintenance and Updates

- Schedule periodic system checks
- Keep software and firmware up to date

5. Compliance with Industry Standards

- Follow IEC 62443 for cybersecurity
- Adhere to ISA-95 or other relevant standards for automation systems

Challenges and Solutions in Practical SCADA Application Design

Designing practical SCADA software comes with challenges, but proactive solutions can mitigate issues:

- **Complexity Management:** Modular design simplifies complexity.
- **Security Threats:** Implement robust cybersecurity measures.
- **Integration Difficulties:** Use industry-standard protocols and flexible middleware.
- **Scalability Constraints:** Plan infrastructure with future growth in mind.

Conclusion

Designing SCADA application software practically requires a balanced approach that considers technical robustness, user experience, security, and scalability. By following structured steps?from requirement analysis to rigorous testing?and adhering to industry best practices, developers can create SCADA systems that not only meet current operational needs but also adapt to future challenges. Practical SCADA applications enhance operational efficiency, safety, and decision-making, making them indispensable in today's industrial landscape.

Remember: The key to successful SCADA software design lies in clarity, flexibility, and security?building systems that serve operational goals effectively and sustainably.

Designing SCADA Application Software: A Practical Guide

In the rapidly evolving world of industrial automation, designing SCADA application software stands as a critical task that demands a strategic blend of technical expertise, user-centric design, and robust system architecture. Supervisory Control and Data Acquisition (SCADA) systems serve as the backbone of modern manufacturing, utilities, and infrastructure management, enabling operators to monitor, control, and optimize complex processes in real-time. Crafting effective SCADA applications is not merely about deploying a set of tools; it?s about creating a reliable, intuitive, and scalable platform that meets the specific needs of your operation. This guide aims to walk you

through the key considerations and practical steps involved in designing SCADA application software that is both functional and future-proof.

Understanding the Foundations of SCADA System Design

Before diving into the practical steps, it?s essential to grasp the core components and objectives of SCADA systems. These systems typically encompass:

- Human-Machine Interface (HMI): The visual dashboard where operators interact with the system.
- Supervisory Layer: Software that gathers data from field devices and provides control commands.
- Data Acquisition Layer: Hardware and protocols that collect real-time data from sensors, PLCs, RTUs, etc.
- Control Layer: Logic and commands that execute control actions based on data analysis.
- Data Storage: Databases that log historical data for analytics and reporting.
- Communication Infrastructure: Protocols and networks that enable seamless data transfer.

Designing effective SCADA software involves aligning these components with operational goals, ensuring smooth communication, and providing intuitive interfaces.

Key Principles for Practical SCADA Application Software Design

- User-Centric Design: The interface should cater to the skill levels of operators, providing clarity, responsiveness, and minimal complexity.
- Scalability: Your design must accommodate future expansion?more processes, devices, or functionalities?without requiring a complete overhaul.
- Reliability and Redundancy: System uptime is critical; design for fault tolerance and failover capabilities.
- Security: Protect against cyber threats with secure communication protocols and access controls.
- Maintainability: Simplify troubleshooting, updates, and configuration management.
- Data Integrity and Accuracy: Ensure real-time data is precise and logs are reliable.

Step-by-Step Guide to Designing SCADA Application Software

- Define Clear Objectives and Requirements

Start with a comprehensive understanding of the operational needs:

- What processes or equipment will be monitored and controlled?
- What are the key performance indicators (KPIs)?
- Who are the end-users, and what are their roles?
- What are the critical safety or compliance concerns?
- What are the data collection, storage, and analysis requirements?

Practical Tip: Engage stakeholders early?operators, engineers, IT staff?to gather diverse insights.

- Conduct a Detailed System Analysis

Map out the existing infrastructure:

- Inventory of sensors, PLCs, RTUs, and other field devices.
- Communication protocols in use (Modbus, OPC, DNP3, etc.).
- Network topology and bandwidth considerations.
- Data flow pathways from field devices to the supervisory level.

Understanding these elements helps in choosing compatible hardware and software components.

- Design the System Architecture

Create a blueprint that incorporates:

- Hardware Layer: Servers, HMIs, networking equipment.
- Software Layer: SCADA platform, databases, middleware.
- Communication Layer: Protocols, gateways, security measures.
- Redundancy & Backup: Failover strategies to ensure high availability.

Best Practice: Opt for modular architecture?components should be loosely coupled to facilitate upgrades and maintenance.

- Choose the Right SCADA Platform

Select a software platform based on:

- Compatibility with existing hardware and protocols.
- Ease of customization and scripting capabilities.
- Vendor support and community resources.
- Licensing models and cost considerations.
- Compatibility with cybersecurity standards.

Popular platforms include Ignition, Wonderware, GE iFIX, and open-source options like OpenPLC.

- Develop the Human-Machine Interface (HMI)

The HMI is the face of your SCADA system:

- Design clear, intuitive screens with logical layout.
- Use standardized symbols and color codes for quick recognition.
- Implement real-time status indicators, alarms, and trending charts.
- Incorporate drill-down capabilities for detailed diagnostics.
- Enable quick acknowledgment and suppression of alarms to prevent operator fatigue.

Practical Tip: Conduct usability testing with actual operators during development.

- Implement Data Acquisition and Control Logic

Configure data collection points, ensuring:

- Real-time data refresh rates are appropriate for process dynamics.
- Data validation rules prevent erroneous readings.
- Control commands can be issued reliably and securely.
- Logging mechanisms record data at appropriate intervals for analysis.

Tip: Use standardized protocols and middleware to facilitate interoperability.

- Incorporate Security Measures

Security cannot be an afterthought:

- Implement role-based access controls.
- Use encrypted communication channels.
- Regularly update firmware and software patches.
- Deploy firewalls and intrusion detection systems.
- Maintain an audit trail of user activities and system changes.

- Test and Validate the System

Before deployment:

- Conduct functional tests for all control logic.
- Perform stress testing under peak loads.
- Validate alarm and notification systems.
- Simulate failure scenarios to test redundancy.
- Gather feedback from end-users for usability improvements.

- Deploy and Monitor

Deployment should follow a phased approach:

- Start with a pilot or a specific subset of the process.
- Monitor system performance and stability.
- Provide training for operators and maintenance staff.
- Establish a maintenance schedule for updates and backups.

Practical Challenges and Solutions

- Integration with Legacy Systems: Use gateways and adaptors to connect old equipment.
- Handling Large Data Volumes: Employ scalable databases and data compression techniques.
- Ensuring Cybersecurity: Regular audits, strong password policies, and network segmentation.
- Managing User Access: Implement multi-factor authentication and detailed access logs.

Future-Proofing Your SCADA Application

- Embrace Industry Standards: OPC UA, MQTT, and other open protocols promote interoperability.
- Leverage Cloud Computing: For analytics, remote access, and disaster recovery.
- Plan for IoT Integration: Incorporate smart sensors and edge computing.
- Focus on Data Analytics and AI: Use historical data for predictive maintenance and process optimization.

Conclusion

Designing SCADA application software is a complex yet rewarding process that significantly impacts operational efficiency, safety, and scalability. It requires a meticulous approach?balancing technical rigor with user experience?while planning for future growth and technological advancements. By following a structured methodology, engaging stakeholders, and adhering to best practices in system architecture, security, and usability, organizations can develop robust SCADA solutions that empower operators and optimize industrial processes for years to come.

Remember: Successful SCADA system design is an ongoing process. Continuous monitoring, feedback, and iterative improvements ensure your application remains effective amid changing operational demands and technological landscapes.

QuestionAnswer What are the key considerations when designing a SCADA application software practically? Key considerations include ensuring system scalability, real-time data processing, user-friendly interface design, robust security measures, integration capabilities with existing systems, and compliance with industry standards to ensure reliability and efficiency. How can I ensure the scalability of a SCADA application during design? To ensure scalability, adopt modular architecture, utilize flexible communication protocols, and choose software frameworks that support easy expansion. Planning for future growth and integrating cloud-based components can also enhance scalability. What are common challenges faced when developing practical SCADA software and how can they be mitigated? Common challenges include handling large data volumes, cybersecurity risks, and system integration issues. These can be mitigated by implementing robust data management strategies, deploying security best practices, and adhering to open communication standards for seamless integration. Which programming languages and tools are recommended for developing practical SCADA applications? Languages like Python, C, and Java are commonly used due to their versatility and support for industrial protocols. Tools such as Wonderware, Ignition, and WinCC offer comprehensive platforms for designing and deploying SCADA systems efficiently. How important is user interface design in a practical SCADA application, and what best practices should be followed? User interface design is critical for effective system monitoring and control. Best practices include maintaining clarity, minimizing clutter, using intuitive visualizations, and ensuring quick access to critical information to enhance operator efficiency and safety. What security features should be incorporated into a practical SCADA application software? Essential security features include user authentication and authorization, encrypted

communications, intrusion detection systems, regular security updates, and audit logging to prevent unauthorized access and ensure data integrity. How can I validate and test a SCADA application to ensure it functions reliably in a practical setting? Validation and testing involve simulation of real-world scenarios, performing functional and performance testing, conducting security assessments, and deploying pilot projects. Continuous monitoring and feedback loops help identify and rectify issues before full deployment.

Related keywords: SCADA software development, industrial control systems, HMI design, real-time data acquisition, system architecture, user interface design, automation programming, data visualization, security protocols, commissioning and testing

Application no annamalai university

Application No Annamalai University: A Comprehensive Guide to the Application Process, Requirements, and Tips for Success

Introduction

Application no Annamalai university is a term frequently searched by prospective students eager to pursue their higher education at one of India's renowned institutions. Annamalai University, located in Tamil Nadu, has established itself as a premier university offering a wide array of undergraduate, postgraduate, diploma, and doctoral programs. As with any esteemed university, the application process can seem daunting, especially for first-time applicants. This guide aims to demystify the application procedure, explain how to obtain and use your application number, and provide valuable tips to enhance your chances of admission.

Understanding the Significance of Application No in Annamalai University

What is an Application Number?

An application number, often referred to as the "application no," is a unique identifier assigned to each applicant upon successful submission of their application form. It serves as a reference for all future correspondence, document verification, and admission processes. For Annamalai University applicants, this number is crucial for tracking application status, downloading admit cards, checking results, and completing fee payments.

Why is the Application No Important?

- Identification: It uniquely identifies your application among thousands of submissions.
- Communication: Used when contacting university authorities or support services.
- Result Retrieval: Required to access examination results or admission offers.
- Document Verification: Needed during the document verification and admission confirmation stages.

How to Obtain Your Application Number for Annamalai University

Step-by-Step Process

- Visit the Official Website

The first step is to navigate to Annamalai University's official admission portal. Ensure you are on the correct, secure site to avoid scams.

- Register as a New User

- Fill in personal details such as name, email ID, mobile number, and password.
- Confirm your registration via email or OTP sent to your registered mobile number.

- Fill the Application Form

- Complete the application form with accurate details including academic qualifications, program choice, and personal information.
- Upload required documents such as photographs, signature, educational certificates, and category certificates (if applicable).

- Make Payment

- Pay the application fee through available online payment methods (credit/debit card, net banking, UPI).
- After successful payment, your application is registered.

- Receive Your Application Number

- Upon successful submission and payment, an application ID or number is generated.
- This number is typically displayed on the confirmation page and sent via email/SMS.

Tips for Safeguarding Your Application Number

- Save and note down your application number immediately after registration.
- Take screenshots of the confirmation page.
- Keep copies of email/SMS notifications containing your application ID.

Common Issues and Solutions Related to Application No

Troubleshooting Tips

- Application Number Not Received: Check spam/junk email folders or resend confirmation emails if available.
- Application ID Lost: Contact university support with personal details for assistance.
- Application Status Not Updating: Wait for some time or check again later, as processing may take time.

Contact Support

- Use the official helpline or email provided on the university?s admission portal.
- Keep your personal details ready for quick assistance.

Important Dates and Deadlines for Annamalai University Applications

| Event | Date Range |

|---|---|

| Application Start Date | Typically announced in advance |

| Last Date to Submit Application | Usually 1-2 months from start date |

| Admit Card Release | 1-2 weeks before exams |

| Examination Dates | As per schedule |

| Result Declaration | Usually within a month after exams |

Note: Always check the official university website for the most accurate and updated dates.

How to Use Your Application No Effectively

During the Admission Process

- Track Application Status: Log in to the admission portal using your application number to monitor progress.
- Download Admit Card: Use your application ID to access and download your admit card when released.
- Check Results: Enter your application number to view entrance exam or semester results.
- Clarify Queries: Mention your application number when contacting support or university officials for queries.

After Admission

- Document Verification: Your application number will be referenced during the verification process.
- Fee Payment: Use the application ID to confirm your fee payments.
- Enrollment and Registration: Keep the application number handy for completing enrollment formalities.

Tips for a Smooth Application Process

Prepare All Necessary Documents in Advance

- Recent passport-sized photograph
- Scanned signature
- Educational certificates (mark sheets, degree certificates)
- Category certificates (if applicable)
- Identity proof (Aadhar card, passport, etc.)

Double-Check Entries Before Submission

- Ensure all details are accurate and free from errors.
- Cross-verify personal information, academic records, and contact details.

Follow Official Announcements

- Stay updated with notifications regarding application deadlines, admit card releases, and exam schedules.

Maintain a Backup

- Save copies of the filled application form and payment receipt.
- Keep a record of your application number and login credentials.

Conclusion

The **application no Annamalai university** is an essential component of the admission process, acting as your unique identifier throughout your academic journey at the university. Understanding how to obtain, use, and safeguard your application number can significantly streamline your application experience. By following the outlined steps and tips, prospective students can ensure a smooth and hassle-free application process, paving the way for a successful academic career at Annamalai University.

Remember, always rely on official sources for the most accurate information and stay proactive in tracking your application status. Good luck with your application, and may your educational aspirations come to fruition at Annamalai University!

Application No Annamalai University: A Comprehensive Guide for Prospective Students

Annamalai University, one of India's oldest and most reputed institutions, has been a beacon of higher education since its inception in 1929. Known for its expansive programs, flexible learning options, and rich academic history, the university attracts thousands of students annually. However, navigating the application process, especially understanding the nuances of application number allocation, can be complex for prospective applicants. This detailed review aims to demystify the concept of Application No Annamalai University, guiding students through the entire process, from application submission to tracking and troubleshooting.

Understanding the Significance of Application Number at Annamalai University

What Is an Application Number?

An application number is a unique identifier assigned to each applicant upon successful submission of an application form. It acts as a reference point throughout the admission process, enabling students and university officials to track, verify, and manage applications efficiently.

Why Is the Application Number Important?

- Identification: Differentiates your application from thousands of others.
- Tracking: Enables students to monitor the status of their application online.
- Communication: Used as a reference in correspondence, interviews, or counseling sessions.
- Documentation: Essential for future processes like admission confirmation, fee payment, and issuance of hall tickets.

How to Obtain Your Application Number from Annamalai University

Application Submission Methods

Annamalai University offers multiple modes for application submission:

- Online Application: Via the official university portal.
- Offline Application: Through physical forms available at designated centers or by post.

Procedure for Online Application

- Registration: Create an account on the official university portal.
- Fill Application Form: Complete personal details, academic records, course preferences, etc.
- Upload Documents: Scanned copies of photographs, signatures, academic certificates.
- Payment: Pay the application fee through available online payment gateways.
- Confirmation: After successful submission, an acknowledgment page appears, displaying your unique application number.

> Note: Always save or print the application confirmation page containing the application number for future reference.

Procedure for Offline Application

- Purchase the application form from designated centers or via postal request.
- Fill the form manually with all required details.
- Attach the necessary documents.
- Submit the form either in person or via mail.
- Upon processing, the university issues an acknowledgment receipt containing your application number.

Understanding the Format and Structure of Annamalai University Application Numbers

Common Format

While the exact format might vary across different courses and years, typical application numbers from Annamalai University follow a structured pattern, for example:

- AU/2023/012345
- ANU/23/678901

Components:

- Institution Code: Indicates Annamalai University.
- Year of Application: Usually in the format '23' for 2023.
- Serial Number: A unique 6-digit number assigned sequentially.

Example:

- AU/2023/045678 signifies an application submitted in 2023 with serial number 045678.

> Tip: Always note your application number immediately after submission for quick access.

Checking Application Status Using Your Application Number

Online Status Tracking

Once you have your application number, you can verify your application's status via the university's official portal:

- Visit the Annamalai University Admission Portal.
- Locate the "Application Status" link.
- Enter your application number and date of birth or password.
- Submit to view current status:

- Received/Under Processing
- Screening/Shortlisting
- Admit Card/Call Letter Issued
- Rejection or Additional Documents Required

Offline Methods

For offline applicants, status updates may be available through:

- Contacting the university's admission helpline.
- Visiting the admission office with your application number for in-person verification.

Common Issues Related to Application Numbers and How to Resolve Them

Lost or Forgotten Application Number

Solutions:

- Check your email inbox and spam folder for confirmation emails.
- Refer to the acknowledgment receipt or printed application form.
- Contact the university?s admission helpdesk with personal details for assistance.

Incorrect Application Number Entry

Solutions:

- Double-check the number entered.
- Ensure you're using the application number assigned to your application, not other reference numbers.

Application Not Found or Status Not Updating

Solutions:

- Wait for some time; processing may be delayed.
- Verify the date of application submission.
- Contact university officials if the issue persists.

Additional Tips for Applicants Handling Application Numbers at Annamalai University

- Keep Multiple Copies: Save digital and physical copies of your application confirmation and acknowledgment receipts.
- Stay Updated: Regularly check official notifications regarding admission procedures and deadlines.
- Secure Your Application Number: Do not share your application number publicly to prevent misuse.
- Use Correct Details: When checking status or communicating with university officials, always use the exact application number and personal details.

Post-Application Process and the Role of Application Number

Admit Card/Call Letter Issuance

The application number is crucial when downloading admit cards or call letters for exams or interviews. It ensures that the correct candidate details are linked to the examination or interview schedule.

Results and Merit List Publication

Once results are announced, the merit lists or cutoff marks are often published online, with applicants required to input their application number for verification.

Enrollment and Admission Confirmation

Successful applicants must use their application number during the enrollment process, fee payment, and document submission.

Important Contact Information and Resources

- Official Website: [Annamalai University Admission Portal]
- Helpline Number: Available on the official site for application-related queries.
- Email Support: Admission support email addresses are provided for assistance.
- Offline Contact: Admission office address and phone numbers for in-person assistance.

Conclusion

Understanding the intricacies of the Application No Annamalai University is vital for a smooth admission journey. The application number acts as your digital passport through every stage of the admission process, from submission to final enrollment. Prospective students should diligently save their application number, verify their application status regularly, and stay informed about any updates or changes in procedures. With careful attention and timely action, securing admission at Annamalai University can be a seamless experience, opening doors to quality education and promising career prospects.

Remember: Always rely on official sources for the most accurate and updated information regarding application procedures and application numbers at Annamalai University.

QuestionAnswer How can I check the status of my application at Annamalai University? You can check your application status by visiting the official Annamalai University admission portal and logging in with your application number and password. What documents are required to apply for courses at Annamalai University? Typically, you need academic certificates, identity proof, passport-sized photographs, and any specific documents related to the course you are applying for. Always refer to the official admission guidelines for detailed requirements. Is there an online application facility for Annamalai University admissions? Yes, Annamalai University offers an online application process for most of its courses through the official university website. What is the application fee for undergraduate courses at Annamalai University? The application fee varies depending on the course and category. Generally, it ranges from INR 500 to INR 1000. Check the official admission portal for precise details. Can international students apply to Annamalai University, and what is the application process? Yes, international students can apply. They need to submit the required academic documents, passport copies, and application forms through the university's international admissions portal or contact the university's international office. What are the important dates for application submission at Annamalai University? Application deadlines vary by course and semester. It is recommended to regularly check the official university website for updates on application opening and closing dates. How do I resolve issues related to my application at Annamalai University? You can contact the university's admission support team via email or phone provided on the official website for assistance with application issues.

Related keywords: Annamalai University application, Annamalai University admission, Annamalai University online form, Annamalai University registration, Annamalai University exam application, Annamalai University admission process, Annamalai University courses, Annamalai University

student portal, Annamalai University application status, Annamalai University degree application

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