

Mastering CVT Transmissions: Maintenance, Troubleshooting, and Rebuild Guide with Real Case Studies and OBD Diagnostics

Future of Automotive Engineering Series, Volume 4

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MASTERING CVT TRANSMISSIONS: MAINTENANCE, TROUBLESHOOTING, AND REBUILD GUIDE WITH REAL CASE STUDIES AND OBD DIAGNOSTICS

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A

B

C

D

E

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Preface

My journey with **Continuously Variable Transmissions (CVTs)** is both personal and professional. For several years, I have been driving a **Nissan vehicle equipped with a CVT**, experiencing firsthand its performance nuances, maintenance requirements, and reliability characteristics. Over time, I have performed **preventive and predictive maintenance**, and ultimately conducted a full **CVT rebuild**, gaining deep, hands-on insight into its operation, failure modes, and service needs.

This practical experience is complemented by my **academic and industrial expertise**. I have extensive experience in **industrial engineering, Lean manufacturing, and maintenance practices**, with projects implemented **locally and internationally**. My work spans system optimization, process improvement, and technical problem-solving, integrating **Lean principles into maintenance and reliability**. This combination of **theory and practice** forms the foundation of the guidance presented in this book, ensuring it is both accurate and actionable.

Over the years, I have authored several books on maintenance, reliability, and predictive technologies, building a comprehensive body of work that bridges **engineering fundamentals, industrial practice, and AI-driven innovations**. These include:

- **Autonomous Car Maintenance: Applying TPM Principles to Keep Your Vehicle Healthy, Safe, and Reliable** – a practical guide to maintaining modern