Atanas Kasidov

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PROFESSIONAL PROFILE

An experienced graduate electrical and systems automation engineer with a broad range of industrial expertise and a proven track records of managing challenging situations, fully focused to deliver high standards and valuable customer satisfaction.

CAREER SUMMARY

Controls Engineering Manager
Ascential Technologies – Burke Porter Bristol UK **Apr 2022 - Present**

Overview
- Burke Porter/Universal Balancing is balancing machines machine manufacturer.
- Working as controls engineering manager.
- Responsible for new and existing controls systems design, development, commissioning, testing and training.
- Engineering support, training and upskilling.
- Development of company controls development standards include: controls hardware standard, controls software standard and controls build standard.
- Part of machine safety risk assessment committee, safety concept, design and implementation.
- Part of machine sign off committee trough different project stages.
- Managing multi projects controls development, implementation and build activities for local and international projects.

Achievements
- Successfully support control team through the project's life cycles with more than 20 years' experience and proven techniques.
- Successfully complete several handed over highly technical projects within all technical requirements.
- Successfully implemented proven electrical and controls engineering models to increase efficiency, familiarity with applications principles and models.
- Build and release first editions of company's controls engineering design standards.
    - Concept architecture principles
    - Hardware selection guidance
    - Electrical design principles guidance
    - Control system build principles guidance
    - Control system test and certification guidance
    - Controls software development principles
- Continuously using team upskilling methods to increase team knowledge.
- Coordinated work activities with different departments.
- Manage team of ten electricals and controls engineers with annual performance reviews.
- Provide advance level expertise for Siemens Industrial Automation products such as TIA Portal platform with standard, safety and technology S7-1500 CPU's, HMI, SCADA IPC, SINAMICS Drives Advance Motions Control for platform S120 and G120 series.

Senior Controls Engineer
Universal Balancing Bristol UK **Oct 2021 – Apr 2022**

Overview
- Universal Balancing is machine manufacturer of balancing machines for automotive industry.
- Working as senior controls engineer, architecture systems design, detailed electrical design, software controls logic, safety logic and user interface development, machine commissioning and operational training.
- Control panel build, field integration and supplier support.
- Working as project team member for providing automatically controlled solutions from concept to system implementation.
- Responsible for machine full life cycle design and implementation including: Architecture design, instrumentation selection and integration, high level detailed electrical and fluid design using globule leader EPLAN design platform, compiling of instrumentation BOM's, software control flow architecture, software control and safety logic development, software user interface development, software deployment and installation, safety integration, commissioning, factory acceptance and user training.

Achievements

- Control system concept, system architecture, electrical and software detail design for eRotor balancing machine from blank design to implementation. Solution delivered within project budged and time line schedule.
    - Concept architecture
        - Machine functions
        - Manual functions
        - Auto functions
        - Safety functions
    - Control system electrical design
        - Electrical package template development
        - Electrical package forms and reports development
        - Electrical package structure and locations platform
        - Electrical schematics, networks topology, device lists, parts lists, cable and terminal diagrams
        - Fluid schematics, network topology, device lists, part lists
        - Control panel general assembly (GA) drawings, external, internal layouts
        - Summarized part lists (BOM) exported to excel format reports
    - Control system control software development
        - Software control flow principal diagrams
        - Project structure and locations template
        - Hardware configuration, ProfiNet and IO Link networks and connections
        - Project orientated library with functions, function blocks, user defined data types
        - Software control logic
        - Software safety control logic
        - Motion control and technology objects for positioning and speed axes
        - Linear positioning technology modules for precision linear measurements
    - Control system user interface software development
        - Screens managements and templates
        - Project orientated library with objects, elements and control
        - User screens navigation expandable template
        - Screen's structure and locations
        - System overview, control, diagnostics, IO status, system options and settings
        - Interactive user guidance with requirements prompts following user requests
        - User help and production data records

Control Systems Design Lead Engineer

Bosch Rexroth Ltd Division: Factory Automation, Cirencester UK **Sep 2017 – Oct 2021**

Overview

- Bosch Rexroth employing more than 29,500 associates across the globe.
- Working as control system architect, control systems design and controls systems software developer.
- Project sales support for controls systems concept design and solutions.
- Working as project team member for providing full turnkey solutions from concept to system implementation.
- Responsible for managing controls systems integrations, including: Systems design and development, BOM's, FDS, electrical schematics design and development, SDS, software design and development, commissioning, factory acceptance and customer approval.

Achievements

- Control system concept and system architecture detail design for navy hoist load system. Include anti-condensation calculation and specification, safety interlocks, operational control interface using safety load cells, safety encoders, safe motion control and safe logic controllers. This also include 3D cabinet layouts, electrical schematics, EMC planning, FAT planning, network interface mapping, control flow diagrams.
- Control system concept and system architecture detail design for automated assembly production line with 22 assembly stations for 9 product variances. This is including: 3D cabinets layouts, BOM's, SDS, TIA S7-1517F Safety CPU series, PLC hardware setup and programming, vision systems, laser marking, motion control, barcode readers, RFID product tracking, hardware fieldbus networking, TCP/IP interfacing with PC data acquisition testers, operator guidance HMI's, line HMI's, OPC UA interfaces, electrical schematics design lead, fluid design architecture. Project Length 54 weeks.
- Control system concept and system architecture detail design for automated assembly production line with 16 assembly stations for 6 product variances. This is including: 3D cabinets layouts, BOM's, SDS, TIA S7-1515F Safety CPU series, PLC hardware setup and programming, vision systems, laser marking, motion control, barcode readers, RFID product tracking, hardware fieldbus networking, TCP/IP interfacing with PC data acquisition testers, operator guidance HMI's, line HMI's, OPC UA interfaces, electrical schematics design lead, fluid design architecture. Project Length 74 weeks.
- Pivotal role in winning project for complex automated assembly line.
- Successful support and supervision for electrical design development for master control system. System used as controlling unit for large cable laying machine as part of intercontinental power exchange project. Project Length 62 weeks.

Project Controls Engineer Leader
English Provender Company LTD, Newbury UK — Aug 2015 – Sep 2017

Overview
- EPC are food manufacturer employing 400 people in Newbury
- Working as Project Controls Engineer Leader.
- Rood cause analysis, fault finding and continuous improvements
- Developing, design and improving existing and new control systems,
- Responsible for new installations and commissioning, all manufacturing controls, networks and programming of various market leaders' controls systems
- Design and re-design new and outdated electrical drawings.
- Machine operation improvements
- Engineer's training and support
- Research for suppliers, parts and manufacturing support, products aftercare and discontinued products

Achievements
- Develop, design and build bespoke control system for automated cook production line with 5 cooking vessels, including: Project Management, Specifications, Software design (visualisation and control), Electrical schematics and commissioning.
- Develop and design new way of Factory OEE management to collect and record data from machine controllers to online servers to graphically visualize machine and product quality performance.
- New production line commissioning. Controls Software, Networks, Drives etc. Design, Installation and commissioning. Provide specifications, electrical drawings, documents, training, know how sheets and machines aftercare strategy.
- Vision System Integration. Providing empty glass objects orientation detection and correction on high-speed moving conveyors. Including Controls and Interface design allowing selection of different object and recipes.
- Factory Oil & Vinegar System Delivery – Including: Software, Networks, Interface and Operation – Existing Software debugging and redesign to meet required manufacturing standards. Improve Alarms Management to minimize faults finding time and provide ability for quick system restoration.
- Commissioning, debugging and reprogramming controls for two new cook pans to provide sufficient Auto, Manual and Supervision operation and control.
- Reprogram and recover outdated PLC software symbolic for two control panels.
- Create and organise schedule for controls system upgrades on stages including reprogramming HMI panels and PLC stations.
- Redesign and reprogramming Depalletizer Machine to improve machine performance and provide sufficient HMI interface, Machine Actual Status, Alarms and faults records. Minimizing downtime from 2-4 hours per week down to 15-20min/p week.

Engineering Support
HONDA UK Manufacturing, Car Plant 2(1), Paint Department, Swindon UK — Apr 2012 – Aug 2015

Overview
- HUM is car manufacture employing 1500 people in Wiltshire
- Working as a shift Production Support Engineer
- Responsible for various reactive and proactive activity's
- Leading, installation and commissioning of various production line projects
- Programming of various PLC and HMI systems
- Problem analysis, fault finding and continuous improvements
- Spare parts research and ordering
- Maintaining stringent Health & Safety standards
- Apprentices Training and Support
- Engineering and Project staff support

Achievements
- Project Development from start to finish for conveyors chain elongation monitoring on sensors scanning principle. Including specification, mechanical, electrical and software design.
- Project Development for upgrade Mitsubishi MELSEC A-Series PLC to Q-Series, replacing old MELSEC NET II Network with new Industrial Ethernet Network. Including specification, PLC and HMI software design.
- Inventing new way to convert Old Mitsubishi PLC Ladder Software in to new IEC Standard, later on acknowledged and accept from Mitsubishi Automation UK
- Convert and rewrite 60% Paint-2 Plant PLC software from Melsec Medoc Plus to GX IEC Developer
- Improved the Ovens processes with new Software and hardware modification to reduce the down time
- Improved and install new SCADA control connections for more adequate monitoring and control
- Replace old hydraulic pumps temperature control switches with new analogue sensors for more accurate control and trends recording
- Improve and Upgrade some of the HMI Screens, HMI Software to display detailed information, alarms history and provide easy equipment control and screen browsing.
- Inventing new low-cost idea how to control Safety equipment override, design new PLC, HMI software and hardware for it.
- Develop, design and install additional PLC and HMI software mods to reduce energy costs from E-Coat cooling pumps.
- Fully recovered lost PLC software symbolic for Base Coat Infrared Oven
- Update some of the electrical drawings to latest hardware configuration using "E-Plan P8-Electrical".

Engineering Supervisor
IBP Ltd, Bradford UK **Sep 2007 - Apr 2012**

Overview
- IBP are meat processors employing 120 people in West Yorkshire
- Supervising two shifts of 6 engineers and managing daily handover between teams
- Responsible for managing the full production line
- Producing the maintenance schedule and engineering budget
- Liaising with suppliers for all parts required by the engineering department
- Maintaining stringent Health & Safety standards
- Constant analysis, monitoring and maintenance of the production line

Achievements
- Pivotal role in building business from start-up including recruiting & training engineers
- Design, build and commissioning 80% of Factory controls systems (Control panels, PLC, network and HMI)
- Project managed the new system from initial target of 3000 units per hour to 8000
- Install, design and improve the process and packaging systems to increase productivity and tack time.

Chief Engineer
Yana Ltd, Burgas BG **Aug 2005 – Sep 2007**

Overview
- Yana Ltd employs circa 700 people and is one of the largest textile companies in Bulgaria
- Managed a team of 4 shift engineers working a 24/7 schedule providing site maintenance
- Managing all engineering services to meet stringent standards
- Maintained a cost-effective operation both financially and environmentally
- Budget and suppliers managing

Achievements
- Gradually improve production efficiency and production down time
- Developed an efficient maintenance plan and engineering strategy

Capital Project Engineer
Yana Ltd, Burgas BG **Jul 2003 – Aug 2005**

Overview
- Developed the asset replacement and capital investment strategy
- Worked closely with all manufacturing areas to drive efficiency & reduce operating costs
- Replaced all the machinery in phased stages
- Involved in new production line project of €400 million to install 150 new machines
- Worked closely with the Machines Manufacturer to optimise machines productivity.

Achievements
- New Production Line installation, target achieved within budget on time
- Successfully trained Engineering Team for operation and maintenance of the new equipment
- Delivered a very high standard of engineering skills to put all new machines into operation

PREVIOUS EXPERIENCE

Electrical Maintenance Engineer, Yana Ltd, Burgas — **Dec 2002 – Jul 2003**
National Air Force Defence Service — **Jul 2002 – Dec 2002**

PROJECT EXPERIENCE

- Electrical processes, automated processes, mechatronics, mechanical, pneumatic and construction

SKILS / KNOWLEDGE / SPECIALIST AREAS

- Industrial manufacturing, machinery, automation control, PLC programming, HMI screen design, control panel design, panel & machine installation, commissioning, maintenance and continuous improvement
- System Design from concept to implementation
- Professional knowledge of programming AC & DC drives for ultimate performance, diagnostic and repairs
- Experienced in PLC/HMI/Tools/Drives programming
    - Siemens: Step 7, TIA PORTAL, Win CC Flexible, TIA Win CC, MicroWin, SINAMICS Starter, SINAMICS Startdrive
    - Allen Bradley / Rockwell: RS Logix 500, RS Logix 5000, Studio 5000, Factory Talk View ME, Panel View, RSLinx, Connected Components Workbench, MicroLogix
    - Mitsubishi: MMP, GX Developer, GX IEC Developer, GX Works 2&3, IQ Works, E-Designer, GT Works 3 - GT Designer (GTD2, GTD3), SCADA MX4, Custom Function Blocks Design, Custom Library Design
    - CODESYS IEC-61131-3
    - Schneider Electric
    - Omron: CX One, SYSMAC Studio
    - Keyence 3D Print Laser Marker
    - Barcode readers
    - Vision Systems
    - RFID Systems, conveyors traffic and data tracking
    - Motion control, positioning, speed axes, kinematics positioning 2D/3D motion control
    - Bosch Rexroth IndraWorks Engineering
- PLC Programming languages IEC 61131-3:
    - Ladder Diagram [LD]
    - Function Block Diagram [FBD]
    - Sequential Function Chart [SFC], [S7 GRAPH]
    - Instruction List [IL]
    - High Level Programming Language: [S7 SCL], Structured Text [ST]
- Electrical design:
    - AutoCAD and AutoCAD Electrical
    - AutoCAD - Panel Layouts 3D
    - EPLAN Platform, EPLAN Pro Panel, EPLAN Fluid ,EPLAN infrastructure
    - SIEMENS NX - Panel Layouts 3D
- Technique: 5 Whys, 5 S, Kaizen

TRAINING AND APPRENTICESHIPS

- Industrial system architecture design, automation and control, project and revision management
- Process control and FMCG industrial machinery
- CAD design, concept and detail design
- Safety of machinery, performance and machinery optimisation
- Interactive interfaces and adaptive programming techniques

QUALIFICATION

- MEng - Systems and Management, graduated with master degree of automation and systems engineer