The Image Processing Method for Quality Control

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ORGANISATION PROFILE

Leading Organisation: Zahit Aluminium San. ve Tic. A.Ş

Personnel: 526

Size: 22.000 ton/year billet casting, 25.000 ton/year extrusion profile production, 3.360.000 m2 aluminium composite panel

Products: Aluminium billet and aluminium profile, B-1, B-2 and A2 aluminium composite panel

Technical area: Aluminium billet production and extrusion

R&D project expertise: Zahit Aluminium has a R&D Center approved by the ministry of industry and technology since 2017. Total 53 project has been conducted in R&D. 24 R&D Researcher and Technician are working in project development department. Also 6 Researcher who acknowledged expert are working as a project specialist.

PROPOSAL INTRODUCTION (I)

Vision: main project goal
Its aimed to use image processing method in production process for obtaining efficiency increase, energy saving, cost reduction.

Motivation: why the project is necessary
The requirement to increase of global efforts play a critical role for sustainable world. The sustainable and inclusive global economy has become the priority agend of the international community. In the customer-oriented market economy, it is of great importance that the products are presented to the market without any errors. One of the most effective ways to achieve this is to use more effective processes at quality control points. Manual product inspections are automated using image processing techniques. Therefore, automatic inspection has an important place for the quality assurance of products in manufacturing industries. Quality processes and processes at the control points that affect the final product surface quality are of great importance in this sense.

Content: which are the developments to be made in the project
R&D studies will be deeply started with the determination of the base-case analysis for quality problems arise from production process. System technical specifications and software development processes will be carried out within the determined requirements. In this study, one of the imaging methods will be based on the IR (Infrared) method.

PROPOSAL INTRODUCTION (II)

Expected outcome: descriptions of the results to be obtained in the project
The project is an specific work in terms of energy management, energy recycling and also energy efficiency.
The project will provide to reduce of the energy usage.
Its aimed to beginning of the energy management in company.
Impacts: what will be the expected market impact of the project
In this project, it is aimed to reduce consumption by using energy effectively.Also its aimed to define the road map of green cycle via this project. Also this project will accelerate the transition green economy with low carbon in company. Thus, the inclusive, sustainable and also recycle process can be integrated in serial production process.
Schedule: start and end dates for the project. Duration.
Start Date: 01.06.2022
End Date: 01.06.2023
Duration: 12 Months

PARTNERS

Current Consortium: list of partners already involved in the project
Zahit Aluminium San. ve Tic. A.Ş, Adana TURKEY

Partner search: Any

CONTACT INFO

Contact info: of the person coordinating the project proposal

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