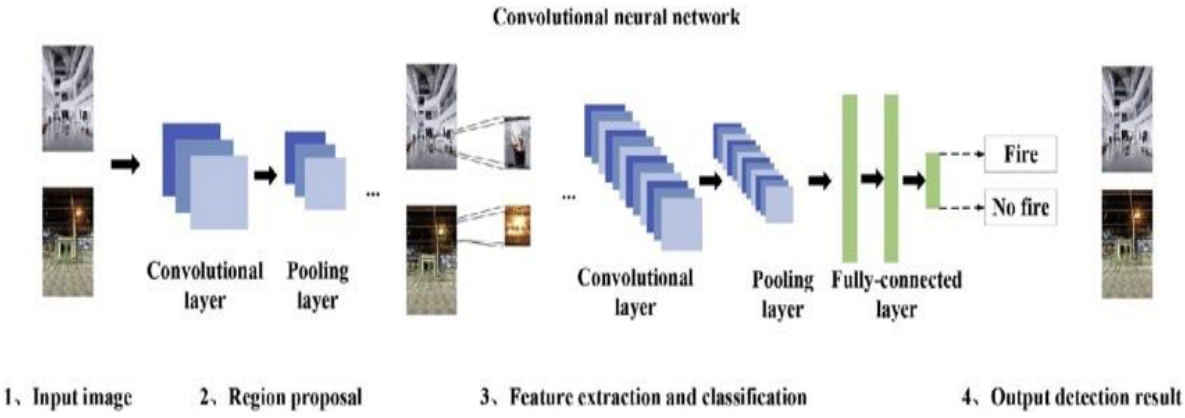
EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

OBJECTIVE OF SOLUTION ARCHITECTURE

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

·Find the best tech solution to solve existing business problems.
·Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
·Define features, development phases, and solution requirements.
·Provide specifications according to which the solution is defined, managed, and delivered.

SOLUTION ARCHITECTURE:



- This Solution Architecture involves four stages.
  1)Input Image
  2)Region Proposal
  3)Feature extraction and classification
  4)Output detection result

- Step 1: We get the input image and discuss feature maps, learning the parameters of such maps, how patterns are detected, the layers of detection, and how the findings are mapped out.

- Step 2: The second part of this step will involve the Rectified Linear Unit or ReLU. We will cover ReLU layers and explore how linearity functions in the context of Convolutional Neural Networks. Not necessary for understanding CNN's, but there's no harm in a quick lesson to improve your skills.

- Step 3-Pooling: In this part, we'll cover pooling and will get to understand exactly how it generally works. Our nexus here, however, will be a specific type of pooling; max pooling. We'll cover various approaches, though, including mean (or sum) pooling. This part will end with a demonstration made using a visual interactive tool that will definitely sort the whole concept out for you.

- Step 4 -Flattening: This will be a brief breakdown of the flattening process and how we move from

- Step 5-Full Connection: In this part, everything that we covered throughout the section will be merged together. By learning this, you'll get to envision a fuller picture of how Convolutional Neural Networks operate and how the "neurons" that are finally produced learn the classification of images.