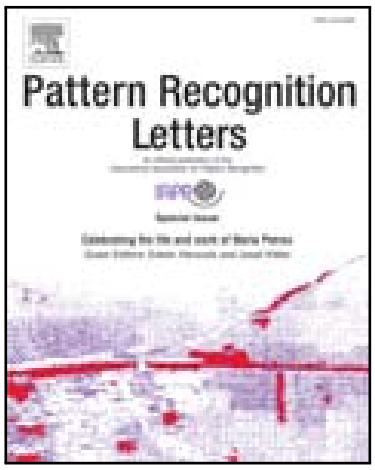

Using filter banks in convolutional neural networks for texture classification

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Research Highlights (Required)

To create your highlights, please type the highlights against each `\item` command.

It should be short collection of bullet points that convey the core findings of the article. It should include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point.)

- We adapt the CNN architecture to texture analysis;
- We introduce an energy layer to discard the overall shape information and focus on texture features;
- We evaluate the domain transferability and the depth of networks that are from scratch or pretrained;
- Our network is simpler than a classic CNN and obtains better classification results on texture datasets;
- We combine our texture CNN to a classic CNN (overall shape analysis) and further improve the results.