**Support Vector Machine-Forest Fires**

|  |  |  |
| --- | --- | --- |
|  | **Kernel** | **Accuracy** |
|  |  |  |
|  | rbfdot | 0.72619 |
|  |  |  |
|  | polydot | 0.72222 |
|  |  |  |
|  | tanhdot | 0.56349 |
|  |  |  |
|  | vanilladot | 0.72222 |
|  |  |  |
|  | laplacedot | 0.72222 |
|  |  |  |

**Confusion Matrix**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **rbfdot** | | |  | **vanilladot** | | |  | **tanhdot** | | |
| **Actual** | | |  | **Actual** | | |  | **Actual** | | |
| **Predicted** | **large** | **small** |  | **Predicted** | **large** | **small** |  | **Predicted** | **large** | **small** |
| **large** | 5 | 4 |  | **large** | 0 | 0 |  | **large** | 14 | 54 |
| **small** | 65 | 178 |  | **small** | 70 | 182 |  | **small** | 56 | 128 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **polydot** | | |  | **laplacedot** | | |  |  |  |  |
| **Actual** | | |  | **Actual** | | |  |  |  |  |
| **Predicted** | **large** | **small** |  | **Predicted** | **large** | **small** |  |  |  |  |
| **large** | 0 | 0 |  | **large** | 0 | 0 |  |  |  |  |
| **small** | 70 | 182 |  | **small** | 70 | 182 |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |

**From the above data , rbfdot and vanilladot having good accuracy with negligible difference . As we are unable to find F1\_scores for vanilladot so we consider rbfdot as final model.**