```matlab
function [resnorm, resvar, RSQ, RSQa, Ak, Aka, Bk] = fitt(y,yhat,p)
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Calculating measures of goodness of fit
%
% INPUT:
% y = reflectance measurements
% yhat = fitted values
% p = number of free parameters in fit
%
% OUTPUT: fit analytics
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

% Degrees of freedom
n = length(yhat);
v = n-p; % number of independent independent variables

% R-squared (standard)
RSS = sum((y-yhat).^2);
TSS = sum((y-mean(y(:))).^2);
RSQ = 1-(RSS/TSS);

% Residual of the correlation coefficient
Rsq_corr = corrcoef(y,yhat).^2; %built-in MATLAB function to return correlation coefficients

% R-squared (adjusted)
RSQa = 1 - (1-RSQ)*(n-1)/v;

% Log-likelihood estimation
resnorm = sum((y-yhat).^2);
LL = 0.5*[-n*(log(2*pi)+1-log(n)+log(resnorm))]; %log likelihood
Ak = 2*p-2*LL;

% Bias-field corrected
Aka = Ak+2*p*(p+1)/(n-p-1);

%Residual variance
resvar = resnorm/(n-p);

% Bayesian correction
Bk = p*log(n)-2*LL;
end
```