

## Min Sheet

MECH (SMME)

**File No:** 0999/09/Trg/SMME/28

**Minute ID:** 37928

**Subject:** Research Proposal under Design & Development of a Smart Ball Based Surveillance System using AI (BKV-1) - Dr Usman Bhutta

1. With reference to the call for proposals from Def R&D NUST, the proposal titled; **Design & Development of a Smart Ball Based Surveillance System using AI (BKV-1)** was submitted to the Def R&D Team. After through discussions with Def R&D NUST, some necessary revisions have been made in the proposal. In this connection proposal title "**Design & Development of a Smart Ball Based Surveillance System using AI (BKV-1)**" attached herewith as annex "A". Detail is as under: -

Title of Projects: Design & Development of a Smart Ball Based Surveillance System using AI (BKV-1)

Name of PI: Dr Usman Bhutta

Project Cost: 4.96 Million PKR

Duration: 12 Months

2. The research proposal may please be forwarded to Def R&D NUST for approval.

**Emad ud Din (HoD MECH (SMME))**  
**MECH (SMME)**  
**Tuesday, 15 March, 2022 17:02:52**

• Wednesday, 16 March, 2022 12:48:49/355621

**HoD Research -SMME**

3. The research proposal may please be forwarded to Def R&D NUST for approval.

**Amer Sohail Kashif (HoD Research -SMME)**  
**ORIC (SMME)**

• Wednesday, 16 March, 2022 20:56:26/356116

**Principal - SMME**

4. Recommended for approval, please

**Javaid Iqbal (Principal - SMME)**  
**SMME Principal Sectt (SMME)**

• Wednesday, 16 March, 2022 21:28:52/356125

**Dir (Research)**

5. FNA Plz

**Dr. Hamood Ur Rahman, SI(M) (Dir (Research))**  
**Research Dte (NUST Main Office)**

• Thursday, 17 March, 2022 11:08:32/356430

**DD (Projects)**

6. The research proposal has been submitted against the call for proposal from Def R&D Ste. Therefore, the case may be forwarded to Def R&D Dte. please.

**Dr. Muhammad Waqas Yaqub (DD (Projects))**  
**Research Dte (NUST Main Office)**

Friday, 18 March, 2022 12:35:38/356636

**Dir (Research)**

7. For further processing please.

**Dr. Hamood Ur Rahman, SI(M) (Dir (Research))  
Research Dte (NUST Main Office)**

Friday, 18 March, 2022 12:51:16/357620

**Director DRD Dte**

8. For evaluation, please.

**Dr. Wasim Khaliq (Director DRD Dte)  
DRD Dte (NUST Main Office)**

Friday, 18 March, 2022 13:19:21/357622

**Deputy Director II, DRD Dte**

9. Refer para 8/N, following observations may please be rectified before further processing of the case:-

- a. Project proposal in accordance with the project template (attached as Anx 'B') may please be forwarded.
- b. Specifications of the prototype in tabular form including No of cameras to be used, size of the ball, battery capacity, charging time, communication protocols / modules (WiFi, bluetooth etc), desktop and mobile app, fps of cameras may be clearly mentioned in spec table.
- c. Expected file transfer data rates and transfer time in case of both throw-up and projectile throw may be mentioned in the proposal.
- d. Availability of accelerometers (to check Zero speed) may be clearly mentioned.
- e. Shock proof and weather proof properties of the ball.

10. Case may be returned to PI to incorporate above changes before further processing of the case, please.

**Fawad Khan (Deputy Director II, DRD Dte)  
DRD Dte (NUST Main Office)**

Friday, 18 March, 2022 15:45:02/357700

**Director DRD Dte**

11. Please update the proposal to cater for observations as per para 9 and resubmit.

**Dr. Wasim Khaliq (Director DRD Dte)  
DRD Dte (NUST Main Office)**

Friday, 18 March, 2022 16:07:33/357941

**Principal - SMME**

12. Please update the proposal as suggested.

**Javaid Iqbal (Principal - SMME)  
SMME Principal Sectt (SMME)**

Friday, 18 March, 2022 16:26:39/357991

**HoD Research -SMME**

13. Proposal may be updated in light of para 9 / N, pls.

**Amer Sohail Kashif (HoD Research -SMME)  
ORIC (SMME)**

• [HoD MECH \(SMME\)](#)

14. For necessary action, pl

**Emad ud Din (HoD MECH (SMME))  
MECH (SMME)**

Wednesday, 30 March, 2022 14:24:36/359493

• [DD Estb\(Fac\)-SMME](#)

15. All the points highlighted by Deputy Director II, DRD Dte have been addressed.

16. The Project proposal has been updated and is now in accordance with the project template.

17. Please find attached the revised Project Proposal as Annexure A.

18. Kindly forward it for onward submission and further necessary action, please.

**Usman Bhutta (DD Estb(Fac)-SMME)  
SMME Principal Sectt (SMME)**

Wednesday, 30 March, 2022 16:36:32/360740

• [HoD MECH \(SMME\)](#)

19. Fwded for nec action, pl

**Emad ud Din (HoD MECH (SMME))  
MECH (SMME)**

Monday, 04 April, 2022 09:53:14/360992

• [HoD Research -SMME](#)

20. The updated research proposal may please be forwarded to DRD NUST for approval.

**Amer Sohail Kashif (HoD Research -SMME)  
ORIC (SMME)**

Monday, 04 April, 2022 22:04:19/363374

• [Principal - SMME](#)

21. The updated research proposal is submitted for approval, please.

**Javaid Iqbal (Principal - SMME)  
SMME Principal Sectt (SMME)**

Tuesday, 05 April, 2022 11:13:21/363663

• [Director DRD Dte](#)

22. Please review for confirmation of actions suggested in para 9 ante.

**Dr. Wasim Khaliq (Director DRD Dte)  
DRD Dte (NUST Main Office)**

Wednesday, 06 April, 2022 12:16:38/364506

• [Deputy Director II, DRD Dte](#)

23. Refer para 22/N, the suggested changes vide para-9 have been incorporated in the updated project proposal attached at Anx-3.

24. Project proposal is recommended and forwarded for approval of Competent Authority, please.

**Fawad Khan (Deputy Director II, DRD Dte)  
DRD Dte (NUST Main Office)**

Wednesday, 06 April, 2022 12:34:36  
Info from Deputy Director II, DRD Dte to: Shahid Abbas (Staff DRD Dte, DRD Dte (NUST Main Office)) Viewed on Wednesday, 06 April, 2022 14:09:25

Monday, 11 April, 2022 11:08:01/364562

### **Director DRD Dte**

25. Recommended for approval out of DRD fund, please.

**Dr. Wasim Khaliq (Director DRD Dte)  
DRD Dte (NUST Main Office)**

• Monday, 11 April, 2022 12:33:33/367178

### **Pro-Rector (RIC)**

26. Approved

**Dr. Rizwan Riaz (Pro-Rector (RIC))  
Pro-Rector Sectt (RIC) (NUST Main Office)**

• Tuesday, 12 April, 2022 15:15:08/367664

### **Director DRD Dte**

27. The project proposal is approved. Fwd for further processing please.

**Dr. Wasim Khaliq (Director DRD Dte)  
DRD Dte (NUST Main Office)**

• Info from Director DRD Dte to: Fawad Khan (Deputy Director II, DRD Dte, DRD Dte (NUST Main Office)) Viewed and seen on Thursday, 12 May, 2022 23:01:37  
Info from Director DRD Dte to: Syed Ali Sarfraz (Deputy Director I, DRD Dte, DRD Dte (NUST Main Office)) Viewed on Wednesday, 13 April, 2022 12:04:05

Tuesday, 12 April, 2022 22:48:45/368552

### **Principal - SMME**

28. FNA please.

**Javaid Iqbal (Principal - SMME)  
SMME Principal Sectt (SMME)**

• Info from Principal - SMME to: Saad Salman (AD Accounts (SMME), SMME Principal Sectt (SMME)) Viewed and seen on Monday, 02 May, 2022 21:45:45

Wednesday, 13 April, 2022 10:44:47/368582

### **HoD Research -SMME**

29. FNA

**Amer Sohail Kashif (HoD Research -SMME)  
ORIC (SMME)**

• Wednesday, 13 April, 2022 13:52:25/369004

### **HoD MECH (SMME)**

30. For necessary action, pl

**Emad ud Din (HoD MECH (SMME))  
MECH (SMME)**

• Monday, 06 June, 2022 11:21:11/369324

### **DD Estb(Fac)-SMME**

31. The project titled Design & Development of a Smart Ball Based Surveillance System using AI (BKV-1) has been approved out of DRD Fund as stated in para 25 followed by the approval of Pro-Rector (RIC).

32. The breakdown of the budget is attached as Annexure-C, Admin Approval for the approved project is requested, please.

**Usman Bhutta (DD Estb(Fac)-SMME)  
SMME Principal Sectt (SMME)**

Monday, 06 June, 2022 12:53:35/398340

• **Principal - SMME**

32. Please route min sheet through AD (Accts).

**Javaid Iqbal (Principal - SMME)**  
**SMME Principal Sectt (SMME)**

Monday, 06 June, 2022 23:14:10/398577

• **DD Estb(Fac)-SMME**

34. Admin Approval of the project titled **Design & Development of a Smart Ball Based Surveillance System** using AI (BKV-1) is required, please.

**Usman Bhutta (DD Estb(Fac)-SMME)**  
**SMME Principal Sectt (SMME)**

Tuesday, 07 June, 2022 10:00:44/398953

• **AD Accounts (SMME)**

35. Please initiate separate minute sheets for each expense head along with approval of amount.

**Saad Salman (AD Accounts (SMME))**  
**SMME Principal Sectt (SMME)**

Tuesday, 21 June, 2022 19:15:07/399128

• **DD Estb(Fac)-SMME**

36. Forwarded for further necessary action as discussed, please.

**Usman Bhutta (DD Estb(Fac)-SMME)**  
**SMME Principal Sectt (SMME)**

Wednesday, 22 June, 2022 11:26:21/409932

• **AD Accounts (SMME)**

37. Def R&D project titled **Design & Development of a Smart Ball Based Surveillance System using AI (BKV-1)** amounting to **Rs. 4.96M** has been awarded to **Dr. Usman Bhutta** as approved by Pro-Rector (RIC) out of **DRD Fund** vide Para-26.

38. Project PI Dr. Usman Bhutta required administrative approval of project budget heads. (**Annex-C**)

39. Keeping in view above, case may please be forwarded to **Def R&D Dte** for **administrative approval** of total project cost amounting to **Rs. 4.96M** as per following details: (**Annex-C**)

a. Human Resource: Rs. 2,524,800/- (Details as per Annex-C)

b. Equipment and Consumables: Rs. 2,062,000/- (Details as per Annex-C)

c. Contingency: Rs. 363,200/- (Details as per Annex-C)

d. Travel: 10,000/- (Details as per Annex-C)

**Saad Salman (AD Accounts (SMME))**  
**SMME Principal Sectt (SMME)**

Thursday, 23 June, 2022 10:30:08/410754

• **Principal - SMME**  
**through: HoD Research -SMME**

**HoD Research -SMME**

40. Case may please be forwarded to Dir DRD for administrative approval in lt of para 39/N, pls.

**Amer Sohail Kashif (HoD Research -SMME)**  
**ORIC (SMME)**

Thursday, 23 June, 2022 11:16:12/410844

• **Principal - SMME**  
**through: HoD Research -SMME**

**Principal - SMME**

41. Forwarded for administrative approval, please.

**Javaid Iqbal (Principal - SMME)**  
**SMME Principal Sectt (SMME)**

Wednesday, 20 July, 2022 18:56:44/412584

**Director DRD Dte**

42. Please review and comment.

**Dr. Wasim Khaliq (Director DRD Dte)**  
**DRD Dte (NUST Main Office)**

Info from **Director DRD Dte** to: Fawad Khan (Deputy Director II, DRD Dte, DRD Dte (NUST Main Office)) **Viewed and seen on Thursday, 21 July, 2022 12:05:15**

Wednesday, 27 July, 2022 00:37:42/425617

**Deputy Director I, DRD Dte**

43. Refer para 26/N, project titled "Design & Development of a Smart Ball Based Surveillance System using AI (BKV-1)" was approved by Pro Rector (RIC) from DRD Fund amounting to Rs 4.96 M. PI (PI 1: Dr M Jawad Khan and PI 2: Dr M Usman Bhutta) has requested for Admin Approval of the project. Details of the same are placed at Annex 4 and covered in Para 39/N. The finalized and signed proposal from both PIs and Principal SMME was requested from PI. The received document is attached as Annex 5.

44. Case is recommended for administrative approval, please.

**Syed Ali Sarfraz (Deputy Director I, DRD Dte)**  
**DRD Dte (NUST Main Office)**

Info from **Deputy Director I, DRD Dte** to: Shahid Abbas (Staff DRD Dte, DRD Dte (NUST Main Office)) **Viewed on Wednesday, 27 July, 2022 08:53:41**

Wednesday, 27 July, 2022 11:11:48/428998

**Director DRD Dte**

45. Administrative approval is required for the project as per para 39/N and Annex-C for delineation of project budget. The case is recommended for approval, please.

**Dr. Wasim Khaliq (Director DRD Dte)**  
**DRD Dte (NUST Main Office)**

Info from **Director DRD Dte** to: Fawad Khan (Deputy Director II, DRD Dte, DRD Dte (NUST Main Office)) **Viewed and seen on Thursday, 28 July, 2022 13:54:44**

Wednesday, 27 July, 2022 13:16:43/429282

**Pro-Rector (RIC)**

46. Please discuss the process. Why are two approvals required for the same project and the same budget?

**Dr. Rizwan Riaz (Pro-Rector (RIC))**  
**Pro-Rector Sectt (RIC) (NUST Main Office)**

Friday, 29 July, 2022 10:06:45/429758

**Director DRD Dte**

47. Further to the discussion, as detailed financial proposal was not provided earlier, administrative approval of the project based on project budget is requested, please.

**Dr. Wasim Khaliq (Director DRD Dte)**  
**DRD Dte (NUST Main Office)**

Info from **Director DRD Dte** to: Fawad Khan (Deputy Director II, DRD Dte, DRD Dte (NUST Main Office)) **Viewed and seen on Friday, 29 July, 2022 10:27:26**

Friday, 29 July, 2022 14:10:01/430706

**Pro-Rector (RIC)**

48. Approved

**Dr. Rizwan Riaz (Pro-Rector (RIC))**  
**Pro-Rector Sectt (RIC) (NUST Main Office)**

Friday, 29 July, 2022 14:35:40/430990

**Director DRD Dte**

49. The project is approved, execution of the DRD project should start at the earliest, please.

**Dr. Wasim Khaliq (Director DRD Dte)  
DRD Dte (NUST Main Office)**

Info from **Director DRD Dte** to: Fawad Khan (Deputy Director II, DRD Dte, DRD Dte (NUST Main Office)) Viewed and seen on Friday, 29 July, 2022 15:16:11

Info from **Director DRD Dte** to: Syed Ali Sarfraz (Deputy Director I, DRD Dte, DRD Dte (NUST Main Office)) Viewed on Friday, 29 July, 2022 14:52:37

Friday, 29 July, 2022 22:03:30/431042

**Principal - SMME**

50. FNA please.

**Javaid Iqbal (Principal - SMME)  
SMME Principal Sectt (SMME)**

Tuesday, 02 August, 2022 12:33:15/431914

**HoD Research -SMME**

51. FFNA pls

**Amer Sohail Kashif (HoD Research -SMME)  
ORIC (SMME)**

Tuesday, 02 August, 2022 13:55:02/432827

**DD Estb(Fac)-SMME**

52. The amount of the project may please be released to SMME for starting the project.

53. Forwarded for onward submission and further necessary action, please.

**Usman Bhutta (DD Estb(Fac)-SMME)  
SMME Principal Sectt (SMME)**

Tuesday, 02 August, 2022 15:47:48/432875

**HoD MECH (SMME)**

54. FNA as per para 52/n.

**Emad ud Din (HoD MECH (SMME))  
MECH (SMME)**

Tuesday, 02 August, 2022 20:34:35/433077

**AD Accounts (SMME)**

55. Financial proposal of the project has been **approved** by Pro-Rector (RIC) vide **Para-48**. Case may please be forwarded to **Fin Dte** for release of project funds to SMME amounting to **Rs. 4.96M** out of **DRD Fund**.

**Saad Salman (AD Accounts (SMME))  
SMME Principal Sectt (SMME)**

Tuesday, 02 August, 2022 21:40:21/433275

**Principal - SMME**

56. Forwarded for release of project funds to SMME.

**Javaid Iqbal (Principal - SMME)  
SMME Principal Sectt (SMME)**

Tuesday, 09 August, 2022 16:09:07/433608

**Director Fin**

57. Please discuss and process.

**Shahzad Nisar (Director Fin)**  
**Finance Dte (NUST Main Office)**

Wednesday, 24 August, 2022 17:15:38/440262

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**Dy Dir Financial Operations**

58. Please process the payment.

**Khalid Hameed Awan (Dy Dir Financial Operations)**  
**Finance Dte (NUST Main Office)**

**Manager Payments**